

Some BRITISH BIRDS



Robin



House Sparrow



Chaffinch



Yellow-Hammer
or Yellow Bunting



Blue Tit



Wren



Skylark



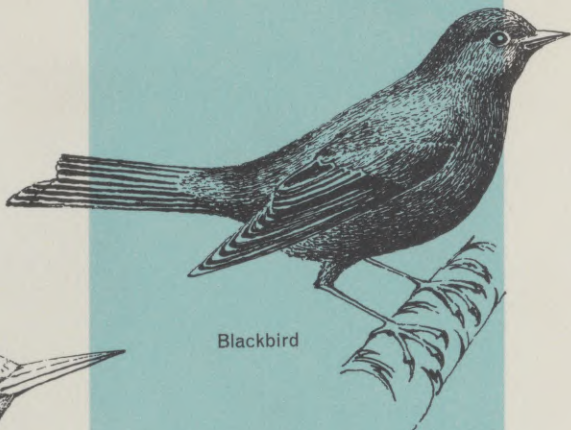
Linnet



Starling



Goldfinch



Blackbird



Kingfisher



Nuthatch



Nightjar



Pied Wagtail



Dartford Warbler



BRITAIN

AN OFFICIAL HANDBOOK

HER MAJESTY THE QUEEN





BRITAIN

AN OFFICIAL HANDBOOK

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Acknowledgment for photographs is made to the following: for those of a blind man operating a switchboard (facing p. 150) and of Brixton Day College (between pp. 262 and 263) to Henry Grant; for the scene from *King Priam* (facing p. 182) to Houston Rogers; for the new Shell offices (between pp. 390 and 391) to the Royal Dutch/Shell Group; for the *Cepet* cabin cruiser (facing p. 503) to John I. Thornycroft and Co. Ltd.; and for the *Harlequin* motorboat (facing p. 503) to Brensal Boats, Ltd. The frontispiece colour picture is by Anthony Buckley.

Introduction

BRITAIN: AN OFFICIAL HANDBOOK, 1963, is the fourteenth in the series prepared and extensively revised each year by the Reference Division of the Central Office of Information with the co-operation of other Government departments and of many national organisations.

The handbook, which is the mainstay of the reference facilities provided by the British Information Services in many countries, was at first only available overseas in a limited free edition. In 1954 it was placed on sale throughout the world and it has since become widely known as an established work of reference.

This 1963 edition, which covers events up to September 1962, gives, like its predecessors, a factual account of the administration and the national economy of the United Kingdom. It describes the activities of many of the national institutions, both official and unofficial, and shows the part played by the Government in the life of the community.

The handbook does not claim to be comprehensive, nor does it attempt to cover Britain's participation in Commonwealth or world affairs. The factual and statistical information it contains is compiled from official and other authoritative sources, and, while most sections of the book relate to the United Kingdom as a whole, facts and figures for England, Wales, Scotland, and Northern Ireland are also given separately when these are available.

Readers who require more detailed information should consult the *Annual Abstract of Statistics* and the *Monthly Digest of Statistics*, issued by the Central Statistical Office, and also other Government publications and standard works of reference, some of which are listed in the bibliography at the end of the handbook. Readers are asked to note that the Central Office of Information reference documents listed in the bibliography as free and marked with an asterisk are available free of charge only at British Information Offices overseas; they can, however, be obtained in the United Kingdom from the Reference Division, Central Office of Information, on payment of a small charge.

REFERENCE DIVISION

CENTRAL OFFICE OF INFORMATION, LONDON

September 1962

THE LAND AND THE PEOPLE

THE PHYSICAL BACKGROUND

The British Isles form a group lying off the north-west coast of Europe with a total area of about 121,600 square miles. The largest islands are Great Britain proper (comprising the mainlands of England, Wales and Scotland) and Ireland (comprising Northern Ireland and the Irish Republic). Off the southern coast of England is the Isle of Wight and off the extreme south-west are the Isles of Scilly; off North Wales is Anglesey. Western Scotland is fringed by numerous islands and to the far north are the important groups of the Orkneys and Shetlands. All these form administrative counties or parts of counties of the mainland, but the Isle of Man in the Irish Sea and the Channel Islands between Great Britain and France have a large measure of administrative autonomy and are not part of England, Wales, Scotland or Northern Ireland.

England (excluding the county of Monmouth on the Welsh border), has a total area (including inland water) of 50,327 square miles and is divided into 40 geographical or 49 administrative counties; Wales (including Monmouthshire), with a total area of 8,017 square miles, has 13 counties; Scotland, including its 186 inhabited islands, has a total area of 30,411 square miles and is divided into 33 counties; and Northern Ireland, consisting of six counties, has a total area of 5,459 square miles. Together, these countries constitute the United Kingdom of Great Britain and Northern Ireland with a total area of 94,214 square miles. The total land area of the United Kingdom (excluding inland water) is 93,018 square miles: England, 50,051; Wales and Monmouthshire, 7,966; Scotland, 29,795; and Northern Ireland, 5,206 square miles.

Care must be taken when studying British statistics to note whether they refer to England as defined above, to England and Wales (considered together for many administrative and other purposes), to Great Britain, which comprises England, Wales and Scotland, or to the United Kingdom as a whole. The position is further complicated by the fact that the county of Monmouth is sometimes included with England. United Kingdom statistics and other data sometimes include the Isle of Man, 227 square miles, and the Channel Islands, 75 square miles, which are strictly not part of the United Kingdom, but are dependencies of the Crown. Since southern Ireland became independent, official statistics do not normally refer to the British Isles as a whole.

The latitude of 50° North cuts across the southernmost part of the British mainland (the Lizard Peninsula) and latitude 60° North passes through the Shetland Islands. The northernmost point of the Scottish mainland, Dunnet Head, near John o' Groats, is in latitude 58° 40'. The prime meridian of 0° passes through the old Observatory of Greenwich (London), while the easternmost point of England is nearly 1° 45' East

and the westernmost point of Ireland is approximately $10^{\circ} 30'$ West. It is just under 600 miles in a straight line from the south coast of Britain to the extreme north and rather over 300 miles across in the widest part. Owing to the numerous bays and inlets no point in the British Isles is as much as 75 miles from tidal water.

The seas surrounding the British Isles are everywhere shallow—usually less than 50 fathoms (300 feet)—because the islands lie on the continental shelf. To the north-west along the edge of the shelf the sea floor plunges abruptly from 600 feet to 3,000 feet. These shallow waters are important because they provide excellent fishing grounds as well as breeding grounds for the fish. The North Atlantic Current, the drift of warm water which reaches the islands from across the Atlantic, spreads out over the shelf and its ameliorating effect on the air is thus magnified. The effect of tidal movement is also increased by the shallowness of the water.

Geology and Topography

Despite their small area, the British Isles contain rocks of all the main geological periods. In Great Britain the newer rocks, which are less resistant to weather, and have thus been worn down to form low land, lie to the south and east, and the island can therefore be divided roughly into two main regions, Lowland Britain and Highland Britain.

In Lowland Britain the newer and softer rocks of southern and eastern England have been eroded into a rich plain, more often rolling than flat and rising to chalk and limestone hills, but hardly ever reaching a thousand feet above sea level. The boundaries of this region run roughly from the mouth of the Tyne in the north-east of England to the mouth of the Exe in the south-west.

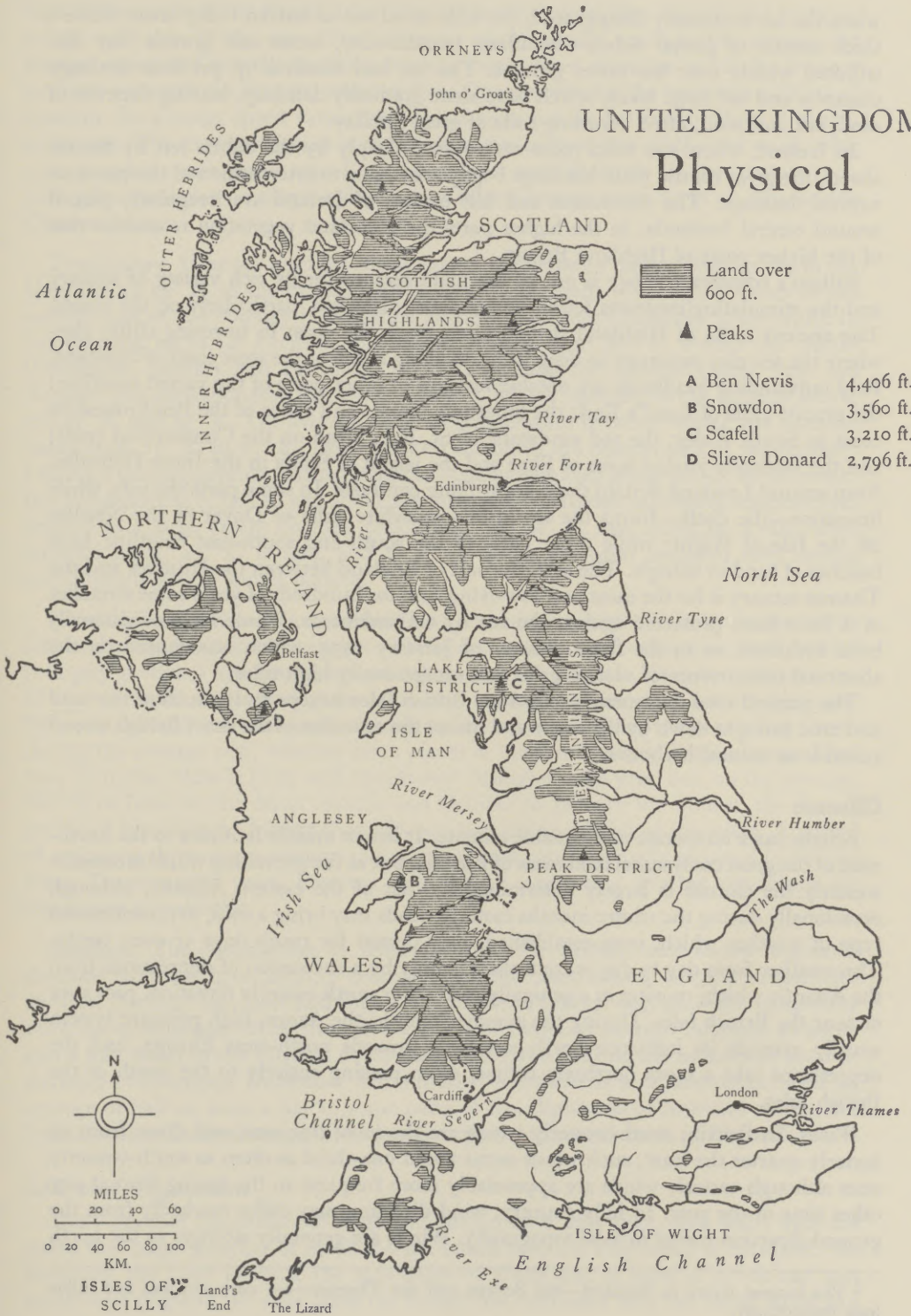
Highland Britain comprises the whole of Scotland (including the hills and moors of southern Scotland as well as the mountains of the Scottish Highlands, which extend from the Forth-Clyde valley to the extreme north-west), the Lake District in north-west England, the broad central upland known as the Pennines, almost the whole of Wales, and the south-western peninsula of England coinciding approximately with the counties of Devon and Cornwall. Highland Britain contains all the mountainous parts¹ of Great Britain and extensive uplands lying above one thousand feet. This high ground, however, is not continuous but is interspersed with valleys and plains. Geologically the mountains and hills consist mainly of outcrops of very old rocks (archaeon and palaeozoic), while the top strata in the valleys and plains are mainly more recent (carboniferous age) and similar to those in the northern and western parts of Lowland Britain.


These carboniferous strata are rich in minerals and include the coal measures which have been the foundation of Britain's industrial expansion. The outcrops and shallow seams of coal which have now largely been exhausted were found on the edge of the plains and up the valleys leading to the high land. Most of the present deep coal workings underlie the fertile lowlands.

Towards the end of Britain's long geological history, when the ancestors of present-day man had already settled in the country, came the great Ice Age, and at one period or another during this time the whole of Britain north of a line joining the river Thames and the Bristol Channel was covered by ice caps and ice sheets. The ice naturally accumulated on the higher ground and swept from the mountains of Scotland, northern England and Wales any loose rock or soil which had previously been formed, so that,

¹ The highest peaks are: in Scotland, Ben Nevis, 4,406 feet; in Wales, Snowdon, 3,560 feet; and in England, Scafell Pike (in the Lake District, Cumberland), 3,210 feet. The highest peak in Northern Ireland is Slieve Donard, 2,796 feet.

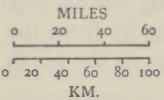
UNITED KINGDOM Physical



 Land over 600 ft.

 Peaks

- A Ben Nevis 4,406 ft.
- B Snowdon 3,560 ft.
- C Scafell 3,210 ft.
- D Slieve Donard 2,796 ft.



ISLES OF SCILLY Land's End The Lizard

when the ice eventually disappeared, the hills stood out as barren rocky areas, while a thick mantle of glacial debris—boulders, boulder-clay, sands and gravels—lay distributed widely over the lower ground. The ice had blocked up previous drainage channels and left large lakes, which have since gradually dried up, leaving deposits of sand, silt and mud, often affording soils of great fertility.

In Ireland, where the solid rocks are covered deeply by the debris left by the ice sheets, the great central plain has large boggy areas, due to interruption of the previous natural drainage. The mountains and hill masses of Ireland are irregularly placed around central lowlands; in the higher parts the moorland vegetation resembles that of the higher parts of Highland Britain.

Britain's complex geology is one of the main reasons for its rich variety of scenery and the stimulating contrasts found within short distances, particularly on the coasts. The ancient rocks of Highland Britain often reach the coast in towering cliffs; elsewhere the sea may penetrate in deep lochs, as along much of the west coast of Scotland. Bold outstanding headlands are notable features in other parts of the varied coastline: the granite cliffs of Land's End; the limestone masses and slates of the Pembrokeshire coast in South Wales; the red sandstone of St. Bees Head on the Cumberland coast; and the vertically jointed lavas of Skye and the island of Staffa in the Inner Hebrides. Even around Lowland Britain there are striking contrasts. In some parts the soft, white limestone—the chalk—forms the world-famous white cliffs of Dover or the Needles off the Isle of Wight; while other parts of the south and south-east coastline have beaches of sand or shingle. The eastern coast of England between the Humber and the Thames estuary is for the most part low-lying, and for hundreds of years some stretches of it have been protected against the sea by embankments. These have occasionally been breached, as in the flood disaster of January 1953, which was caused by the abnormal concurrence of violent gales and exceptionally high tides.

The marked tidal movement around the British Isles sweeps away much of the sand and mud brought down by the rivers and makes the estuaries of the short British rivers¹ valuable as natural harbours.

Climate

Britain has a temperate and equable climate. It lies in middle latitudes to the north-west of the great continental land mass of Eurasia, but as the prevailing winds are south-westerly the climate is largely determined by that of the eastern Atlantic, although occasionally during the winter months easterly winds may bring a cold, dry, continental type of weather which, once established, may persist for many days or even weeks. The weather from day to day is controlled mainly by a succession of depressions from the Atlantic which, moving in a generally easterly or north-easterly direction, pass over or near the British Isles. During the summer months the Azores high pressure system usually extends its influence north-eastwards towards north-west Europe, and the depressions take a more northerly course, often passing entirely to the north of the British Isles.

Winds. In Britain, south-westerly winds are the most frequent, and those from an easterly quarter the least; such winds occur about one-third as often as south-westerly ones although easterly winds are appreciably more frequent in the spring than at any other time of the year. In hilly country, wind direction may differ markedly from the general direction owing to local topography. Winds are generally stronger in the north

¹ The longest rivers in England—the Severn and the Thames—are only 210 and 200 miles long respectively.

than in the south of the British Isles, stronger on the coasts than inland, and stronger in the west than in the east. The strongest winds usually occur in the winter; the average speed at Lerwick, Shetland Islands, varies from about 22 m.p.h. in January to about 14 m.p.h. in August, while at Kew Observatory, on the western outskirts of London, the average speed varies from about 10 m.p.h. in January to about 7 m.p.h. in August. The stormiest region of the British Isles is along the north-west coast, with over 30 gales a year; south-east England and the east Midlands are the least stormy, with gales occurring on about 2 days a year inland and on some 15 to 20 days on the Channel coast.

Temperature. Near sea level the mean annual temperature ranges from 47° F. in the Hebrides to 52° F. in the extreme south-west of England; it is slightly lower in the eastern part of the country in the same latitude. The mean monthly temperature in the extreme north, at Lerwick (Shetlands), ranges from 39° F. during the winter (December, January and February) to 53° F. during the summer (June, July and August): the corresponding figures for Jersey (Channel Islands), in the extreme south, are 43° F. and 63° F. The average range of temperature between winter and summer varies from 15° F. to 23° F., being greatest inland in the eastern part of the country. During a normal summer, the temperature occasionally rises above 80° F. in the south, but temperatures of 90° F. and above are infrequent. Extreme minimum temperatures depend to a large extent on local conditions, but 20° F. may occur on a still, clear winter's night, 10° F. is rare, and 0° F. or below has been recorded only during exceptionally severe winter periods.

Rainfall. The British Isles as a whole have an annual rainfall of over 40 inches, while England alone has about 34 inches. The geographical distribution of annual rainfall is largely governed by topography and exposure to the Atlantic, the mountainous areas of the west and north having far more rain than the plains of the south and east. Between 150 and 200 inches of rain fall on the summits of Snowdon and Ben Nevis during the average year, whereas some places in the south-east of England record less than 20 inches. Rain is fairly well distributed throughout the year, but, on the average, March to June are the driest months and October to January the wettest, the former period of four months having about 60 per cent of the rainfall of the latter. A period of as long as three weeks without rain is exceptional, and is usually confined to limited areas. In successive years, however, remarkably contrasting weather conditions are sometimes experienced.

Sunshine. The distribution of sunshine over the British Isles shows a general decrease from south to north, a decrease from the coast inland, and a decrease with altitude. During May, June and July—the months of longest daylight—the mean daily duration of sunshine varies from five and a half hours in western Scotland to seven and a half hours in the extreme south-east of England; during the months of shortest daylight—November, December and January—sunshine is at a minimum, with an average of half an hour a day in some parts of the Highlands of Scotland and in the Peak District (Derbyshire) and two hours a day on the south coast of England.

Soil and Vegetation

Many parts of the surface of Highland Britain have only thin, poor soils, with the result that large stretches of moorland are found over the Highlands of Scotland, the Pennines, the Lake District, the mountains of Wales and in parts of north-east and south-west England. In most areas the farmer has cultivated only the valley lands and

the plains where soils are deeper and richer; villages and towns are often separated by uplands with few if any habitations.

With the exception of a few patches of poor soil or rocky land, almost the whole of Lowland Britain has been cultivated, and farmland covers the area except where there are urban and industrial settlements. Elaborate land drainage systems have been developed through the centuries to bring under cultivation the fertile soil of the low-lying fenland of Lincolnshire and similar areas in East Anglia.

With its mild climate and varied soils, Britain has a diverse pattern of natural vegetation. When the islands were first settled, oak forest probably covered the greater part of the lowland, giving place to extensive marshlands, forests of Scots pine on higher or sandy ground and perhaps some open moorland. In the course of the centuries the forest area was progressively diminished and, in spite of planting by estate owners in the eighteenth and nineteenth centuries, and the establishment of large forests by the Forestry Commission in the past forty years, woodlands now occupy only about 7 per cent of the surface of the country. The greatest density of woodland occurs in the north and east of Scotland, in some parts of south-east England and in Monmouthshire on the Welsh border. Midland Britain appears to be well wooded because of the numerous hedgerows and isolated trees. The most common trees are oak, beech, ash and elm and, in Scotland, pine and birch.

There are various types of wild vegetation, including the natural flora of woods, fens and marshes, foreshores and cliffs, chalk downs and the higher slopes of mountains; the most widespread is that of the hilly moorland country, which consists mainly of heather, grasses, gorse and bracken, with cotton grass in the wetter parts. Most of Britain, however, is agricultural land, of which about a third is arable and the rest pasture and meadow, a varied semi-natural vegetation composed of indigenous grasses and flowering plants.

Farming land is divided into fields by hedges or stone walls and, especially in the mixed farms which cover most of the country, presents a pattern of contrasting colour. The cool temperate climate of Britain and the even distribution of rainfall ensure a long growing season; streams rarely dry up, grassland is green throughout the year and full of wild flowers from spring to autumn; there is scarcely a month in which some flowers may not be found in hedgerows and sheltered woodland glades.

Fauna

The fauna of the British Isles is, in general, similar to that of north-western Europe, though there are fewer species. Some of the larger mammals, including the wolf, the bear, the boar and the Irish elk, have become extinct; but red deer, protected for sporting reasons, flourish in the Scottish Highlands and on Exmoor in the counties of Devon and Somerset, roe deer are found in Scotland and in the wooded areas of southern England, and fallow deer (which are probably not indigenous) have been introduced into parks and are wild in some districts. The badger, a nocturnal animal, is rarely seen; there are foxes in most rural areas, and otters are found along many rivers and streams. Both common and grey seals may be seen on various parts of the coast, though not usually in the same localities. Smaller mammals include mice, rats, voles, shrews, hedgehogs, moles, squirrels (the imported grey more numerous than the native red), hares, rabbits (a serious farming pest before their decimation by myxomatosis in the years 1954 and 1955), weasels and stoats.

There are about 430 species of birds, including many song-birds. About 230 species are resident and the rest are regular visitors to Britain. The chaffinch and the blackbird are probably the most numerous and are widely and evenly distributed, but sparrows

usually predominate near houses, and huge flocks of starlings, which gather at certain seasons, sometimes congregate in London and other large towns. In general, the number of small birds has been on the increase for several decades owing to their success in adapting themselves to a man-made environment and also to their more considerate treatment by the public. The number of large birds, on the other hand, has tended to decline, except for game birds which are specially preserved, such as pheasants and partridges, and the red grouse which is found in moorland areas.

The many species of gulls and other sea-birds which nest round the coast often fly far inland in search of food or shelter in rough weather. The drainage and reclamation of marsh lands have diminished the natural habitat of duck, geese and other aquatic birds. Such birds, however, now frequent reservoirs, gravel pits and sewage farms in addition to the nature reserves and bird sanctuaries which have recently been established on an increasing scale. Many of the rarer species of birds are protected by law.

Reptiles and amphibians are few. The former are represented by three species of snakes, of which only the adder is venomous, and three species of lizards, including the snake-like slow-worm. The amphibians are represented by three species of newts and five species of frogs and toads. Of these, only one species of newt and the common viviparous lizard are indigenous; the other species of reptiles and amphibians that are now firmly established came to Britain from Europe. There are no snakes in Ireland.

River and lake fish include salmon, trout, sea-trout, perch, roach, dace, grayling and pike.

There are more than 21,000 different kinds of insects, most of them small, in the British Isles. Among the largest are the rare swallowtail butterfly (3 to 4 inches) and the stag beetle ($2\frac{1}{2}$ inches). The insect fauna in Britain is less varied than that of continental Europe and lacks a number of common European species. With modern methods of pest control, extensive insect damage to crops or timber and serious outbreaks of diseases commonly spread by insect vectors are exceptional in Britain.

THE DEMOGRAPHIC BACKGROUND

The people who now inhabit the British Isles are descended mainly from the people who inhabited them nearly nine centuries ago. The last of a long succession of invaders and colonisers from Scandinavia and the continent of Europe were the Normans, a branch of the Norsemen or Scandinavian Vikings who, after settling in northern France, intermarrying with the French, and assimilating the French language and customs, crossed to England and conquered it in 1066.

It is neither possible nor suitable to attempt in this chapter to estimate the relative importance of various early peoples—pre-Celts, Celts, Romans, Anglo-Saxons and the Norsemen, including the Danes—in the ancestry of the present English, Scots, Welsh and Irish. It is significant, however, that over most of England and the Lowlands of Scotland the language which soon came to predominate was English, mainly a marriage of Anglo-Saxon and Norman-French, while the use of Celtic languages persisted in Wales, Cornwall, the Isle of Man, the Highlands of Scotland and in Ireland (see p. 19).

The available records do not permit of any precise estimates of the size of population or of the extent or direction of population movement until the beginning of the nineteenth century. It is believed, however, that at the end of the eleventh century the population of Great Britain was about two million, while at the end of the seventeenth century a reasonable contemporary estimate put the population of England and Wales

at 5½ million and that of Scotland at about one million. The main factor in this gradual growth of population was a slow natural increase, the rate of which was retarded in Britain, as in all countries before the development of medical science, by high death rates and, in particular, by very high infant and maternal mortality. Immigration from the continent of Europe was an influence at certain times, for example, that of Flemish weavers in the fourteenth and fifteenth centuries.

From the beginning of the nineteenth century, information about the British people—their number, sex, age, geographical distribution, births, deaths, marriages, occupations, language and family structure—is relatively plentiful and reliable. Most of it is derived from two main sources: the regular flow of vital statistics, i.e. statistical information based on statutory registration of births, marriages and deaths, and the periodic census of population which gives a national snapshot at a particular moment of time.

The Compilation of Vital Statistics

The compilation of complete records of births, marriages and deaths is carried out by registrars of births and deaths, some of whom also act as registrars of marriages. In England and Wales there are about five hundred superintendent registrars in charge of registration districts and about twelve hundred registrars in charge of sub-districts. Registrars and superintendent registrars are appointed by the county, county borough and metropolitan borough councils but they act under the instruction of the Registrar General for England and Wales, who is in charge of a central Government department, the General Register Office, concerned with regulating the registration of births, deaths and marriages, with planning and carrying out population censuses, and with the compilation and analysis of population and vital statistics. There are corresponding authorities¹ and similar arrangements (differing only in detail) in Scotland, Northern Ireland, the Channel Islands and the Isle of Man.

In general, the legal obligations in connection with the registration of births, marriages and deaths are as follows. The responsibility for giving information to a local registrar about a birth is placed first on the parents of the child (the mother where the child is illegitimate), then on the occupier of the house and any person present at the birth, on the person in charge of the child or on any person finding a new-born child. Similarly, information for the registration of a death must be given by a relative present at the death or in attendance during the last illness or, in their absence, by any other relative residing or being in the sub-district where the death occurred, by the occupier or an inmate of the house or by any person finding or taking charge of the body or arranging for its disposal. The doctor who attended the deceased during his last illness must issue a certificate giving the cause of death and deliver it at once to the registrar. Deaths of persons not receiving medical attention, deaths the cause of which is unknown and unnatural, and accidental or violent deaths must be reported to a coroner (a procurator-fiscal in Scotland).

Marriages are registered immediately after the ceremony. In general, marriages according to religious rites are entered in registers held by the officiating clergyman or some other person appointed by the religious body concerned. Some religious marriages, and all civil marriages, are attended and registered by registrars of marriages. In England and Wales civil marriages are solemnised in superintendent registrars'

¹ The various authorities are: the General Register Office, Somerset House, London; the General Registry Office, Edinburgh; the General Register Division of the Ministry of Finance of the Government of Northern Ireland; the Governments of Jersey, of Guernsey and its associated islands, and of the Isle of Man.

offices. Certified copies of all entries of births, deaths and marriages are sent quarterly to the General Register Office.

In Scotland there are no superintendent registrars but for each of nearly 1,000 registration districts there is a registrar of births, deaths and marriages. Some 300 of these registrars may conduct civil marriages in their offices. Duplicate registers are transmitted annually to the Registrar for Scotland after inspection by district examiners. In the 184 registration districts of Northern Ireland, only live births are registered (whereas both live and still births are registered in Great Britain) and certain supplementary information (collected in Great Britain primarily for fertility studies) is not required. Roman Catholic marriages in Northern Ireland are registered on the authority of a certificate completed at the time of the ceremony, instead of being recorded in a bound register immediately the ceremony is over.

The Census

Censuses of the people of Great Britain have been taken regularly every ten years since 1801, except that there was no census in 1941 because of the war. In 1951 and 1961 censuses covering the whole of the British Isles were taken by the appropriate authorities in England and Wales, Scotland, Northern Ireland, the islands of the British seas and the Irish Republic. All the reports based on the 1951 censuses have now been published. The preliminary reports—straightforward counts of males and females by area—of the 1961 censuses were published in 1961 and the first of the final reports was due towards the end of 1962.

The short demographic account of the United Kingdom given in this chapter is based mainly on census reports and on the regular returns of births, marriages and deaths, though some use has been made of other special investigations, including the Reports of the Royal Commission on Population.¹

Total Population

The enumerated population of the United Kingdom at the censuses taken on 23rd April, 1961, was 52,675,556, excluding persons in the Isle of Man and the Channel Islands, which are not strictly parts of the United Kingdom.

The population had increased by nearly 2½ million since 1951, by about 6½ million since 1931, by about 8½ million since 1921 and by about 45½ million—or about seven-fold—since 1700. The main causes of this increase were a progressive reduction in death rates and a continuance of high birth rates into the beginning of the twentieth century.

The population density of the United Kingdom is one of the highest in the world. It was approximately 564 persons per square mile at the time of the 1961 censuses.

Birth and Death Rates

For most of the nineteenth century the annual birth rate was about 35 per thousand of the population, and the annual death rate was just over 20 per thousand. Both birth and death rates fell over the last 30 years of the century, but the natural increase of the population changed but little. It rose from 12 per thousand in 1851 to 15 per thousand in 1881, and fell to 11 per thousand in 1901.

These fertile years, with their comparatively high death rates in all age groups, produced a population of low average age. At each successive census the population of any age group exceeded the corresponding figure at the preceding census, while the

¹ This commission was appointed in March 1944; its main report was published in March 1949.

short expectation of life further reduced the ratio of older to younger persons. When, therefore, death rates in all age groups fell by an average of about 33 per cent, as they did between 1880 and 1910, the results were a very low general death rate, which helped to maintain the population increase in spite of a fall in the birth rate, and a gradual increase in the average age of the population.

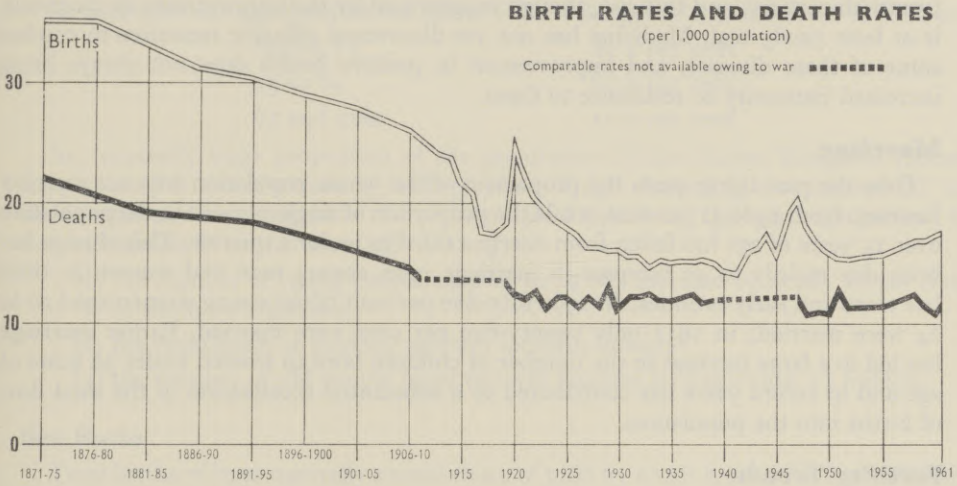
After the first world war the birth rate fell to less than half the nineteenth century rate. Even so, the population continued to increase slowly, though its average age rose more rapidly (see diagram below).

PERCENTAGE CHANGE IN POPULATION SINCE 1901 BY AGE GROUP

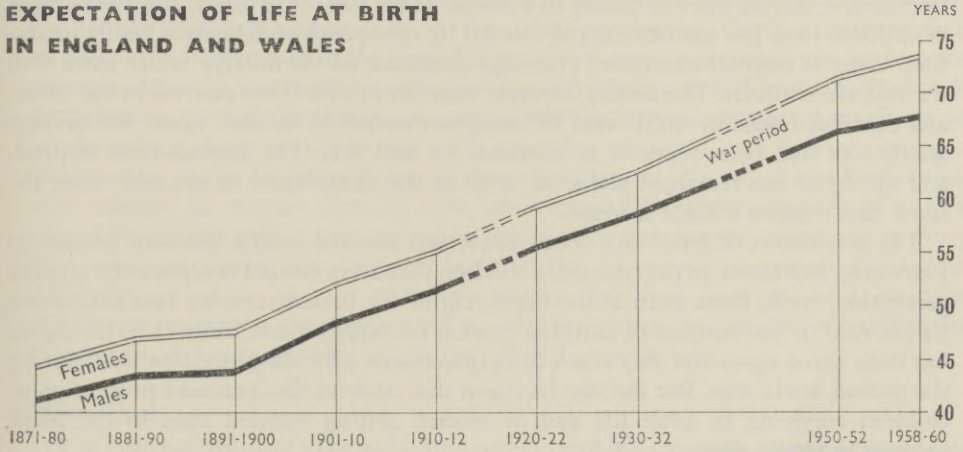


Owing to the changing age composition, the general death rate has remained nearly stationary at around 12 per thousand of the population though death rates have continued to fall heavily in every age group, particularly among pre-school children, school children, and adults in their thirties and forties, with a consequent lengthening of the expectation of life from about 50 years at birth in 1900 to 1910 to over 70 years at birth in 1958 to 1960. Since 1933 the steady fall in the number of births has

ceased. During the second world war the birth rate began to rise and reached a temporary post-war peak of 20·7 per thousand population in 1947. It then receded again to slightly above the pre-war level in the early 1950s, but since 1955 it has risen slowly and was 18·0 per thousand in 1961.



EXPECTATION OF LIFE AT BIRTH IN ENGLAND AND WALES



Mortality Causes

The causes of the decline in mortality include better nutrition, rising standards of living, the advance of medical science, the growth of medical facilities, improved health measures, better working conditions, education in personal hygiene, public and private schemes to make the health services generally available, and the smaller size of the family, which has reduced the strain on mothers and enabled them to take greater care of their children.

Mortality from acute infectious diseases and from tuberculosis, and infant and maternal mortality have declined very sharply. Mortality from the main acute infectious diseases of childhood is less than one-hundredth and mortality from tuberculosis is

less than one-thirtieth of the rate prevailing in the mid-nineteenth century. Infant mortality (i.e. deaths of infants under one year old per thousand live births) has fallen by about 80 per cent since 1900. Maternal mortality is now only about one-eleventh of the 1934 rate. The reported mortality from many of the chronic diseases of middle and old age, such as cancer of the lung and coronary thrombosis, has risen during the twentieth century, and this rise, though exaggerated by the improvement in diagnosis, is at least partly real. Medicine has not yet discovered effective measures to combat some of these diseases, and improvement in positive health does not always bring increased immunity or resistance to them.

Marriage

Over the past thirty years the proportion of the whole population who are married has risen from 43 to 51 per cent, while the proportion of single persons in the population over 15 years of age has fallen from nearly a third to under a quarter. This change has been due mainly to an increase in marriage rates among men and women in their late teens and early twenties. In 1960 fifty-five per cent of the young women aged 20 to 24 were married; in 1931 only twenty-five per cent were married. Earlier marriage has led to a large increase in the number of children born to women under 30 years of age and in recent years has contributed to a substantial acceleration of the total flow of births into the population.

Fertility Trends

The fall in birth rates in the latter part of the nineteenth and the early part of the twentieth centuries was due mainly to a decline in the size of the family (i.e. the number of children born per married couple) caused by the spread of deliberate family limitation. Couples married a hundred years ago produced on the average rather more than six liveborn children. The decline seems to have set in with those married in the 1860s, and continued steadily until, with the couples married in the late 1920s, the average family size had been reduced to between 2.2 and 2.1. The decline then stopped, and the figure has remained stable in spite of the disturbance of the war years; the latest data suggest a slight increase.

The generation of girls born about 1840, and married mostly between 20 and 30 years later, had about 40 per cent more children than were needed to replace the original generation, while those born at the beginning of the present century had only about 70 per cent of the number of children needed for replacement. Since then the figure has been rising again and may reach full replacement with the generation born during the second world war. But the rise has been due more to the increased proportion of children surviving to adult life and of women getting married than to the small increase in family size.

At first the decline in family size was most marked among the professional and salaried classes. Among couples married between 1900 and 1930 the families of manual workers were about 40 per cent larger than those of non-manual workers, but this class difference appears to have been diminishing. The decline in family size has been slower in Scotland and Northern Ireland than in England and Wales.

Age Distribution

The first effect of the fall in the birth rate was to reduce the number of children, and therefore the ratio of dependent population to working population. This ratio was at a minimum in the 1930s. After 1936 the number of children leaving school for work fell sharply owing to the drop in the birth rate after 1921, while the population

aged over 40 continued to increase and the population aged over 64, born during an era of high fertility and representing successive generations of steeply rising numbers, increased very rapidly. The higher birth rates after 1942 have arrested the compensating fall in the number of dependent children and have further reduced the ratio of working to dependent population.

At mid-1961 the age distribution of the United Kingdom was estimated as follows:

Under 15	..	..	..	23.1 per cent
15 to 64	..	..	..	65.2 per cent
65 and over	..	..	..	11.7 per cent

An unusually large proportion of the population of the United Kingdom (about 14 per cent) is now between 45 and 55 years of age. Assuming a continued fall in death rates and net emigration of 27,000 people a year from the usual age groups, it can be estimated that between 1961 and 1975:

- (1) the number of young people aged 15 to 29 will increase by nearly 16 per cent to about 11.8 million;
- (2) the population of working age will increase slowly;
- (3) the number of old people (over 65) will increase by more than 1½ million.

Sex Ratio

Total births of boys naturally exceed those of girls by about 6 per cent, but stillbirth rates and mortality rates at almost all ages are higher for males, so that in nearly all countries—and in Britain since records began—women preponderate among the elderly and outnumber men in the total population. Until recently indeed women outnumbered men in the United Kingdom in every age group from adolescents onwards. Actually, however, the reduction in stillbirths and infant mortality has made the influence of these factors on sex ratio relatively unimportant so that the age at which women begin to outnumber men has been advanced and is now about 30. On the other hand, the lengthening of the expectation of life, which has been rather more marked for women than for men, has increased the preponderance of women among the elderly—there are now some five women over seventy years old to every three men—and made it a weightier factor in the sex ratio of the whole population. This increase in the number of elderly women, however, does not quite counter-balance the increase in the number of boys and young men so that the ratio of females to males has fallen from 108 : 100 in 1951 to 107 : 100 in 1961.

Migration

From the beginning of the nineteenth century until the 1930s the balance of migration was markedly outward. Between 1815 and 1930 well over 20 million people left Britain for destinations outside Europe, mainly in the Commonwealth and the United States. Many emigrants later returned and large numbers of Europeans, mainly Russians, Poles, Germans and Hungarians, entered the British Isles. Nevertheless, the net loss by migration from the present area of the United Kingdom amounted to some four million between 1871 and 1931. Since then the balance of migration of Britain as a whole has been inward, though Scotland and Northern Ireland have throughout continued to have a net outward movement of population from the United Kingdom as well as to England and Wales. The main net inflow to Britain as a whole was in the years 1931 to 1940, when emigration was very low, many former emigrants returned and there was extensive immigration from Europe, including about a quarter of a

million refugees seeking sanctuary in Britain. There was also considerable net immigration from the Irish Republic. After the 1939-45 war emigration to Commonwealth countries rose, but for the whole intercensal period 1931 to 1951 there was a net gain by migration of about half a million for the United Kingdom as a whole. In the intercensal period 1951 to 1961 the net balance of migration was again inward, but by a smaller margin (97,000), though the gross migration flows were higher than before. Emigration to the Commonwealth increased and total emigration was probably over 200,000 in the two peak years of 1952 and 1957. Immigration, however, was also increasing—from the Commonwealth, from the Irish Republic and from the continent of Europe; and from 1958 onwards the balance of migration was again markedly inwards. The major factor in this change was the increase in immigrants from overseas Commonwealth countries into the United Kingdom (very largely into England and Wales). Over the two years 1960 and 1961 there was a net intake of 194,000 of these into the population, including a net inward movement of 116,000 British West Indians. In these circumstances, the Government decided that it was necessary to take powers to control immigration from the Commonwealth and, in principle, the Irish Republic. The Commonwealth Immigrants Act, 1962 (see p. 454) empowered the Government to restrict the number of persons from the Commonwealth and Irish Republic who may immigrate into the United Kingdom without assured prospects of employment or adequate means of self-support, and to deport unsuitable immigrants.

At the 1951 census some 1.7 million persons in the United Kingdom were reported as having been born outside it. About a fifth of them had been born in other independent Commonwealth countries or in United Kingdom dependencies, about a third in the 26 counties of southern Ireland (now the Irish Republic), and nearly half in foreign countries, notably Poland, Germany, Russia and the United States. The number born in the overseas Commonwealth and in the Irish Republic had increased by about one-third and two-thirds, respectively, since 1931, and the number born in foreign countries had approximately doubled. In view of the high levels of immigration, it is probable that the number of persons living in the United Kingdom, but born elsewhere, has increased further since 1951. An important factor in recent years has been immigration from the West Indies and the Indian sub-continent. Immigrants from those countries at present living in Britain are estimated to number about half a million.

Nationality

Less than one per cent of persons were of alien nationality at the time of the 1951 census; the remainder were either citizens of the United Kingdom and Colonies or of other Commonwealth countries or were British protected persons or citizens of the Irish Republic.

Under the British Nationality Act, 1948, with insignificant exceptions, persons who are born, or whose fathers were born, in the United Kingdom or in a territory which was a colony of the United Kingdom on 1st January, 1949, or at the date of birth if later, or in a United Kingdom registered ship or aircraft, are citizens of the United Kingdom and Colonies. Citizenship may also be acquired: by descent (subject to certain requirements) from a paternal grandfather born in the United Kingdom or Colonies or from a more remote paternal ancestor in the male line; by registration, for citizens of Commonwealth member countries or of the Irish Republic, for minor children and for women married to citizens of the United Kingdom and Colonies; in consequence of an adoption order; and by naturalisation. The requirements for the grant of a certificate of naturalisation include five years' residence in the United Kingdom or Colonies or five years' Crown service, good character, a sufficient

knowledge of English and the intention to reside in the United Kingdom or a colony or to remain in Crown service.

A citizen of the United Kingdom and Colonies does not forfeit his citizenship by acquiring or possessing the nationality or citizenship of another country; nor does a woman who is a citizen of the United Kingdom and Colonies lose her citizenship by marriage to an alien. Indeed, a citizen cannot be deprived of his citizenship against his will except in very exceptional circumstances (for example, if he has obtained naturalisation or registration as a citizen by fraud). Any man or woman who is a citizen is, however, at liberty to renounce citizenship if he or she possesses or acquires the nationality or citizenship of another country.

Citizens of the other independent Commonwealth countries are, in United Kingdom law, British subjects or Commonwealth citizens. Until the passing of the Commonwealth Immigrants Act, 1962, they were free to enter and remain in the United Kingdom without restrictions of any kind. Similar treatment has been extended to citizens of the Irish Republic who, in the United Kingdom, are not aliens.¹

Regional Distribution and Trends

The distribution of the population of the British Isles by country and major administrative region as enumerated at the 1961 census and at certain previous censuses back to 1841 is shown in Tables 1 and 2.

The populations of England, Wales, Scotland and Northern Ireland and of each of the principal regions of England were in every case greater in 1961 than in 1951 and in 1951 than in 1931, whereas in the period 1921-31 the populations of Wales, Scotland and Northern Ireland had declined. Between 1931 and 1951, the greatest increases were in the eastern, southern, midland and south-western regions of England, and in Northern Ireland. The smallest increase was in Wales. Since 1951 the main increases have been in the eastern, southern and north midland regions of England.

The population of the United Kingdom taken as a whole is predominantly urban and suburban. During the nineteenth century, when the labour demands of newly developing industry drew great numbers from the countryside to the towns, the urban element continuously and rapidly outgrew the rural element. At the end of the nineteenth century, 75 per cent of the British population was living within the boundaries of urban administrative areas and the large conurbation² was already the dominant type of British community. By 1911 the economic and social limits of these conurbations extended far beyond the administrative boundaries of the cities which formed their core, owing to the building of outer suburbs which linked up neighbouring towns. Since 1921 nearly 40 per cent of the population has lived in the seven great conurbations whose centres are the cities of London, Manchester (South-East Lancashire), Birmingham and Wolverhampton (West Midlands), Glasgow (Central Clydeside), Leeds and Bradford (West Yorkshire), Liverpool (Merseyside), and Newcastle upon Tyne (see Table 2).

¹ Special transitional arrangements apply to citizens of South Africa, which ceased to be a member of the Commonwealth in May 1961. Under the South Africa Act, 1962, South Africans, unless they are also citizens of the United Kingdom or some other Commonwealth country, became aliens, but South African citizens who fulfil certain defined qualifications showing close connections with the United Kingdom or a colony by descent, residence or employment can become United Kingdom citizens by registration if they apply before the end of 1965.

² An area of urban development where a number of separate towns have grown into each other or become linked by such factors as a common industrial or business interest or a common centre for shopping or education.

TABLE 1
POPULATIONS 1841-1961^a

		1841	1871	1901	1931	1951	1961
ENGLAND (excluding Monmouth- shire)	Persons	14,867,882	21,299,771	30,514,967	37,359,045	41,159,213	43,430,972
	Males	7,259,028	10,352,934	14,717,155	17,839,205	19,745,530	21,008,142
	Females	7,608,854	10,946,837	15,797,812	19,519,840	21,413,683	22,422,830
WALES AND MONMOUTH- SHIRE	Persons	1,046,266	1,412,495	2,012,876	2,593,332	2,598,675	2,640,632
	Males	518,558	706,000	1,011,458	1,293,805	1,270,103	1,290,757
	Females	527,708	706,495	1,001,418	1,299,527	1,328,572	1,349,875
SCOTLAND	Persons	2,620,184	3,360,018	4,472,103	4,842,980	5,096,415	5,178,490
	Males	1,241,862	1,603,143	2,173,755	2,325,523	2,434,358	2,484,170
	Females	1,378,322	1,756,875	2,298,348	2,517,457	2,662,057	2,694,320
GREAT BRITAIN	Persons	18,534,332	26,072,284	36,999,946	44,795,357	48,854,303	51,250,094
	Males	9,019,448	12,662,077	17,902,368	21,458,533	23,449,991	24,783,069
	Females	9,514,884	13,410,207	19,097,578	23,336,824	25,404,312	26,467,025
NORTHERN IRELAND	Persons	1,648,945	1,359,190	1,236,952	1,243,000 ^b	1,370,921	1,425,462
	Males	799,711	647,285	589,955	601,000 ^b	667,819	694,768
	Females	849,234	711,905	646,997	642,000 ^b	703,102	730,694
TOTALS GREAT BRITAIN AND NORTHERN IRELAND	Persons	20,183,277	27,431,474	38,236,898	46,038,357	50,225,224	52,675,556
	Males	9,819,159	13,309,362	18,492,323	22,059,533	24,117,810	25,477,837
	Females	10,364,118	14,122,112	19,744,575	23,978,824	26,107,414	27,197,719
ISLE OF MAN	Persons	47,975	54,042	54,752	49,308	55,253	48,151
	Males	23,011	25,914	25,496	22,443	25,774	22,060
	Females	24,964	28,128	29,256	26,865	29,479	26,091
JERSEY	Persons	47,544	56,627	52,576	50,462	57,310	63,345
	Males	21,602	24,875	23,940	23,424	27,291	30,555
	Females	25,942	31,752	28,636	27,038	30,019	32,790
GUERNSEY AND ASSOCIATED ISLANDS	Persons	28,521	33,969	43,042	42,743	45,496	47,178
	Males	12,943	15,433	21,140	20,675	22,091	22,890
	Females	15,578	18,536	21,902	22,068	23,405	24,288
IRISH REPUBLIC	Persons	6,528,799 ^c	4,053,187	3,221,823	2,933,000 ^d	2,960,593	2,814,703
	Males	3,222,485 ^c	1,992,468	1,610,085	1,497,000 ^d	1,506,597	1,415,100
	Females	3,306,314	2,060,719	1,611,738	1,436,000 ^d	1,453,996	1,399,603
TOTALS BRITISH ISLES	Persons	26,836,116	31,629,299	41,609,091	49,113,870	53,343,876	55,648,933
	Males	13,099,200	15,368,052	20,172,984	23,623,075	25,699,563	26,968,442
	Females	13,736,916	16,261,247	21,436,107	25,490,795	27,644,313	28,680,491

Source: Census Reports and Estimates by Population Authorities.

(a) The figures (with the exception of those indicated in (b) and (d) below) are for populations enumerated in censuses.

(b) Estimate (censuses were taken in 1926 and 1937, but not in 1931).

(c) Military and Naval personnel are not included in these figures.

(d) Estimate (censuses were taken in 1926 and 1936, but not in 1931).

TABLE 2
DISTRIBUTION OF THE POPULATION(a) *Thousands*

	Area in square miles(b)	1921	1931	1951	1961
Urban and rural districts					
England and Wales:					
Urban districts	8,240.5	30,035	31,952	35,336	36,838
Rural districts	50,104.5	7,851	8,000	8,422	9,233
Scotland:					
Cities and burghs	441.6	3,311	3,362	3,592	3,646
Landward areas	29,353.3	1,572	1,481	1,504	1,533
Northern Ireland:					
Urban districts	78.5	638 (c)	678 (c)	750	770
Rural districts	5,159.5	619 (c)	602 (c)	621	655
Standard regions of England and Wales:					
Northern	7,470.7	3,020	3,038	3,141	3,252
East and West Ridings	3,962.7	3,731	3,929	4,097	4,168
North-Western	3,083.0	6,023	6,197	6,447	6,568
North Midland	6,407.6	2,746	2,939	3,378	3,634
Midland	5,024.8	3,503	3,743	4,423	4,754
Eastern	7,264.4	2,224	2,433	3,098	3,736
London and South-Eastern	4,190.6	9,486	10,330	10,906	11,093
Southern	4,872.4	1,954	2,135	2,649	2,819
South-Western	9,113.9	2,544	2,615	3,021	3,408
Wales	8,015.8	2,656	2,593	2,599	2,641
Conurbations:					
Greater London	724.2	7,488	8,216	8,348	8,172
South-East Lancashire	379.5	2,361	2,427	2,423	2,427
West Midlands	268.8	1,773	1,933	2,237	2,344
Central Clydeside	324.4	1,638	1,690	1,760	1,802
West Yorkshire	484.6	1,614	1,655	1,693	1,703
Merseyside	150.0	1,263	1,347	1,382	1,386
Tyneside	90.2	816	827	836	852
Cities:					
Belfast	24.0	415 (c)	438 (c)	444	416
Birmingham	79.9	919	1,003	1,113	1,106
Bradford	39.9	286	298	292	296
Bristol	41.2	377	397	443	436
Cardiff	23.6	221	227	244	256
Coventry	29.9	128	167	258	305
Edinburgh	52.0	420	439	467	468
Glasgow	60.4	1,034	1,088	1,090	1,055
Kingston upon Hull	22.2	287	314	299	303

Continued overleaf

TABLE 2 (*contd.*)DISTRIBUTION OF THE POPULATION(*a*)*Thousands*

	Area in square miles(<i>b</i>)	1921	1931	1951	1961
<i>Cities—contd.</i>					
Leeds	63.5	458	483	505	511
Leicester	26.5	234	239	285	273
Liverpool	43.4	803	856	789	747
Manchester	42.6	730	766	703	661
Newcastle upon Tyne	17.3	275	283	292	269
Nottingham	28.5	263	269	306	312
Sheffield	61.9	491	512	513	494
Stoke on Trent	33.1	240	277	275	266

Source: Census Reports and Estimates by Population Authorities.

(*a*) The boundaries of some of the administrative areas have been altered from time to time. The population figures given relate in general to the areas as these were defined in the year noted at the head of each column. The figures for conurbations, however, relate in general as nearly as possible to areas as constituted in 1961.

(*b*) Area at the date of the 1961 census of population.

(*c*) 1926 and 1937 census figures.

The second world war halted suburban building and for a time reduced the population of conurbations and large cities, but by the end of the war many people had returned to the neighbourhood of their pre-war homes. At the 1951 census many large cities and towns had larger populations than in 1939, but the population of others was smaller. Table 2 shows the distribution of the population by urban and rural districts and the populations of the standard administrative regions, of the seven major conurbations and the 17 largest cities, some of which are the principal cities included in the conurbations. It should be borne in mind, however, that the statistics of cities, relating to administrative areas, do not necessarily include all the continuously built-up area of the city; in the case of large towns, development commonly extends without a break across administrative boundaries and is likely to cover considerable areas which are administratively rural. The statistics for conurbations, which consist of continuously built up and economically inter-dependent areas and include developing suburbs of large cities, are in some cases more illuminating.

The greatest concentration of population in Britain is in the London area. Greater London is variously defined but it certainly covers an area much larger than the County of London (population about 3 million). The continuously built-up area extends into the counties of Middlesex, Hertfordshire, Surrey, Essex and Kent, and the area socially and economically dependent on the capital is still wider. As in other urban concentrations, there is a long-established tendency for decreases in the number of people who actually have their homes in the inner parts of the area—especially the centre itself—to be balanced by increases of population in and beyond the outer suburban fringes. The war accelerated the pre-war fall of population in the inner areas and retarded the rapid pre-war expansion of some of the outer areas. Between

1939 and 1951 the County of London lost about two-thirds of a million people and the population of the official conurbation, which roughly corresponds to the continuously built-up area, fell by some 380,000 to 8,350,000 in 1951.

Since 1951 there has been a further dispersal, facilitated in part by the improvement in public transport and the spread of car ownership. The population of the inner areas has continued to fall, the population of the conurbation outside London County is almost static, while a broad belt of almost continuous population increase now completely encircles the official conurbation, includes and passes beyond all London new towns and extends along every major rail and road route from London. The contemporary London region can be defined as a roughly circular area with a radius of 40 to 50 miles from central London and a population in 1961 of some 12,000,000 (an increase of half a million since 1951). The redistribution within this region has resulted both from voluntary or private moves and from planned transfers of population and probably from differences in natural increase. The increased population of the outer areas includes both commuters, who have moved their homes but continue to travel to work in inner London, and inhabitants of new towns and expanded existing towns, who have changed both their home and their workplace.

The characteristic of urban dispersal, which has reached its largest scale in the London area, has been a feature of post-war change also in many provincial cities and towns. It has been most marked where the local economy has been prosperous, population increase rapid, and land for development in short supply. Outward movement and fringe development for one or more of these reasons has been noticeably large in outer areas of the West Midlands and Merseyside conurbations and on the edges of Bristol, Derby, Leicester, Norwich, Oxford, Portsmouth and Sheffield.

Apart from the feature of urban dispersal, the past decade has seen widely different rates of population growth in various parts of the country. The general picture is that many places in the Midlands and south-east England, some south coast retirement areas and some economically prosperous parts of the north and west have experienced increase above the national rate; they include in particular the London, Birmingham and Southampton-Portsmouth areas, Coventry, Oxford, Gloucester-Cheltenham, Bournemouth, Middlesbrough, Doncaster and York. There was comparatively little increase or no change in the South-East Lancashire, West Yorkshire, and Tyneside conurbations. Few places had any decrease of population; it was generally small in amount and affected mainly some old industrial areas in Lancashire and south Wales and a number of seaside towns. Rural districts, in total, had a high rate of increase, but this was due largely to expansion on town peripheries.

Language

In England, Wales, Scotland and Northern Ireland, English is the language predominantly spoken. In Wales, however, Welsh, a form of British Celtic, is the first language of the majority of the population in most of the western counties and was spoken by 29 per cent of the population at the time of the 1951 census. In Scotland, in 1961, some 77,000 persons, mainly in Ross and Cromarty, Inverness, Argyll, and Lanark, spoke the Scottish form of Gaelic,¹ while a few families in Northern Ireland spoke the Irish form of Gaelic. The Manx and Cornish varieties of Celtic are no longer effectively living languages, although, in the Isle of Man, Manx is spoken by a few people, and is used in addition to English for certain official pronouncements.

¹ Most of the islands off the west coast of Scotland where Gaelic is spoken are included in the counties of Ross and Cromarty, Inverness and Argyll.

English is spoken throughout the Channel Islands, but a Norman-French *patois* is still also spoken there by some people. French is still the official language of Jersey, used for ceremonial and official procedure; both French and English are used in the courts. In Guernsey, however, English is now used for almost all official proceedings.

SOCIAL PATTERNS

A general summary of trends in social organisation, similar in scope to the foregoing summary of population trends, is not practicable. It may be useful, however, to review some of the evidence relating to the structure of British households and the extent and use of leisure in Britain in order to provide a background to the information given in later chapters on such matters as town planning, housing, and transport.

Number and Composition of Households

In Great Britain, as in other countries, most people live as members of private households (usually families). Less than 5 per cent of the population was enumerated by the censuses of 1911, 1921, 1931 and 1951 in institutions such as hotels, schools, and hospitals.

In 1911 there were about nine million private households¹ in Great Britain. By 1951, according to the censuses of England and Wales and of Scotland, there were about 14½ million households, an increase of about 60 per cent. This expansion was much more rapid than the 19 per cent increase in the total population during the same period because falling birth rates and a lengthened expectation of life meant more but smaller families. The average size of households in Great Britain fell from 4.5 persons in 1911 to 3.2 in 1951. In England and Wales the number of persons living in households of one or two persons almost trebled between 1911 and 1951. At the end of this period such households constituted about 40 per cent of private households and comprised about 20 per cent of the population in private households. In 43 per cent of families of two persons, the head of the household was 60 years of age or over.

Of the 14½ million private households in Great Britain in 1951, 11½ million were estimated, according to the 1951 census one per cent sample tables (based on an analysis of a representative one per cent sample of census returns in Great Britain), to be of the simplest type, comprising married couples or widowed persons with their children, if any, or persons living alone. More specifically, they comprised 3.2 million married couples with no children, 900,000 widowed or divorced persons living alone, 6.9 million married couples, widowed or divorced persons with children of any age and 600,000 single persons living alone. Some three-quarters of the single persons living alone and almost all widowed and divorced persons living alone were over 40 years old, and about two-thirds of all persons living alone were 60 years of age or over.

Altogether over 8 million households (57 per cent of all households) were estimated in the 1951 census sample tables to be without children under 16, while another 3.1 million contained only one child.

In the years since 1951 considerable changes in the numbers, size and composition of households have taken place. According to the preliminary results of the 1961 census of England and Wales, the intercensal increase in the number of households was about 12 per cent, compared with a 5 per cent increase in population and about 20 per cent in number of dwellings. This further decrease in the average size of households is consistent with the increase in the number of elderly people who tend to live alone

¹ Counting persons living alone as one-person households.

or in pairs and with the splitting of some households. Owing to the more rapid increase in the number of dwellings there are now, however, fewer shared dwellings. Indeed the total number of dwellings, including vacant dwellings, falls short of the number of households by less than 0.4 per cent.

The small average size of households does not imply that wider family and kinship ties are without strength and social significance. Indeed, a study, published in 1957,¹ stressed the importance of the mutual help of relatives and neighbours in the long-established and balanced communities living in the more crowded parts of East London. The survey, which also covered a suburban area of Greater London, noted the dangers of weakening such ties when households are moved out to more congenial suburban surroundings.

Work and Leisure

The great majority of British males over 15 years of age are in full-time gainful employment, and the majority of females are either housewives or in full-time gainful employment. In many cases housewives also undertake part-time or even full-time employment. Nearly a third of married women have a paid job, and half the women working for pay are married.

Agreed hours of full-time work for the majority of occupations are usually from 42 to 46 hours a week. Actual weekly hours worked by men average a little longer owing to overtime working, and actual hours worked by women and girls average a little less. In addition, the journey to and from work is often long. The 1951 census showed that three-quarters of the $1\frac{1}{2}$ million persons working in central London lived outside it and that many travelled in from the fringes of Greater London and some from farther away. A sample survey of travel in Greater London, made in 1954, showed that 89 per cent of workers in Greater London made regular journeys to work and that 56 per cent used public transport. The average time taken by such persons was 39 minutes each way, though for workers in central London it was 47 minutes each way. Both the number of persons travelling daily to work in central London and the average length of such journeys are tending to increase.

There is also often a long journey for housewives to the main shopping centre in both urban and rural areas. In most areas there are, of course, a few shops much closer at hand.

Probably less than five per cent of housewives employ any paid help and almost certainly less than one per cent have a resident servant. The statistical evidence on this matter is rather fragmentary, but suggests a continuing reduction in the number of households with paid help, and confirms what can in any case be readily deduced from everyday experience, that housewives have less leisure and considerably fewer periods of continuous leisure of over one hour than other persons in Britain, in spite of the growth of the habit of eating some meals away from home² and the spread of labour-saving devices. Three households in every four now have a vacuum cleaner, two in five a washing machine and nearly one in three a refrigerator.

Compared with earlier generations, however, most people today have considerably more leisure. In many industries and services, hours of work are usually arranged to give a five-day week, and most employees are entitled to two weeks' continuous holiday a year in addition to the statutory public holidays. Over half the population take at least a week's holiday away from home every year, mostly in July and August. Traditionally

¹ *Family and Kinship in East London*, by Michael Young and Peter Willmott. *Routledge*.

² It is estimated that approximately half of all school children and of all adults at work take their midday meal away from home on working days.

most families have spent their holiday by the sea in Britain, lodging at a seaside boarding house or hotel, or staying with relatives or friends. Latterly, other forms of holiday have been gaining in popularity, including holiday camps, caravanning and touring in a car or coach. A relatively small but rapidly increasing number of holiday-makers go abroad; over three million in 1961, including travellers to the Channel Islands and to the Irish Republic. In the same year about 1,824,000 overseas tourists (including some 425,600 from the United States) visited Britain.

At least a quarter of the adult population is interested in playing or going to watch outdoor sports. Sporting interests are becoming increasingly varied (see Chapter 18) but Association football is still the most popular. Much of the gambling with small stakes, which is practised at least occasionally by three adults out of four, is on the results of sporting events, mainly horse and greyhound racing and football matches (through the football pools, see Chapter 18).

The spread of television has added a vast new audience of indoor spectators to the crowds who go to watch sporting events and great national occasions. By mid-1962 about 80 per cent of the families in Britain (and a somewhat higher proportion of the large families) had a television set; viewers are fairly evenly distributed among all sections of the population, irrespective of income or occupation. The number of television receiving licences doubled between 1955 and 1959 to over nine million. Since 1959 the increase has been slower, the total number in June 1962 being about 11,983,700.

Rising standards of living and, in particular, the widely distributed ownership of television sets and motor vehicles, have affected leisure habits in many ways and have provided new and varied opportunities for recreation and entertainment.

There were some ten million licensed motor vehicles in the summer of 1962, of which over six million were private cars and 1.9 million were motor cycles (including motor scooters). Many cars and some motor cycles are used partly, if not primarily, for business purposes. During the summer, however, roads to the sea and the country and to sporting events are usually thronged (and sometimes jammed) with cars, especially on fine Saturdays and Sundays. The spread of car ownership, making many people more independent of public transport, is leading to a new and more scattered distribution of houses, and is changing the siting requirements of factories, shops and offices, as well as the whole pattern of leisure activities.

During the past twenty years the real incomes of manual workers, and particularly of unskilled workers and young workers under eighteen years of age, have risen rapidly both in absolute terms and in relation to the incomes of non-manual workers. At the same time, opportunities for education and promotion, already considerable, have widened. An investigation of occupational and social mobility made eleven years ago found that, if occupations were classified by social status into seven groups, only one man in three had the same social status as his father. More than half the people in the two top groups ('professional and administrative' and 'managerial and executive') were the sons of men who had held less important positions, while only a quarter of the sons of unskilled workers were themselves in occupations in that category. A recent (1958-59) survey of the way of life of 600 hourly-rated men in five manufacturing firms in England found that a quarter of the sons over eighteen years of age of men in the sample were in professional or managerial occupations or training for them. In consequence, social distinctions based on occupation have become less clear cut, and differences in the ways of life of manual and non-manual workers are much less pronounced. Many manual workers' families have acquired habits and tastes which were formerly regarded as 'middle-class', though educational and cultural levels vary widely.



The village of Hutton-le-Hole, North York Moors National Park.



A Scottish town: Galashiels.



Northern Ireland: the Coast of Ballintoy, County Antrim.

Fly-fishing in Wales: a class from Snowdonia National Recreation Centre, Capel Curig.



Such social changes often call for difficult adjustments. Many families of unskilled and semi-skilled workers, for example, suddenly find themselves with more money to spend when their children leave school for work at fifteen years of age; while the families of most non-manual and many skilled manual workers forgo the extra income in order to continue their children's education. The increased earnings of young workers, however, have influenced the status and outlook of adolescents generally. 'Teenage' society with sufficient coherence, independence and spending power to establish its own customs, tastes and fashions is a feature of present-day Britain; and, as in many other countries, the activities of groups of teenagers without adequate parental control attract more attention than formerly and are a serious social problem in certain areas.

The chief long-term effects of television, according to recent investigations, are to widen tastes and stimulate new interests. Another result has been a fall in attendances at cinemas, formerly the main entertainment of large sections of the community. Cinema attendances are at barely a third of the rate of ten years ago, but the cinema remains the most popular form of indoor entertainment outside the home, particularly for young men and women and older children. About two-thirds of the unmarried aged 15 to 24 go at least once a week.

Attendances at theatres are much smaller. There are probably only some 400 theatres compared with some 2,800 cinemas. Nevertheless, there is an enthusiastic and growing public not only for plays but for ballet, opera and concerts.

Dancing is popular, especially with those under twenty-five years of age; it is thought that about five million people go dancing every week and television audiences for ballroom dancing competitions are rated at nearly five million households. There are estimated to be some 3,000 to 4,000 regular dance halls, including public dance halls and halls operated by the major dance schools, which are open at least three times a week, and about 4,000 other schools of ballroom dancing. Public dances are also often held in other halls, while many of the clubs and societies which abound in Britain hold dances from time to time in their own or hired premises. In addition, Scottish and English traditional dances have their own following while, since the war, there has been a very large increase in attendance at ballet and other stage dancing classes (mainly by young girls).

In addition to the perennially popular sports and pastimes, there are a number which attain a transitory popularity and it is not possible to tell how permanent any new trend will prove. A sport new to Britain and gaining popularity is ten-pin bowling. Another recent amusement is bingo which has become very popular since the coming into force of the Betting and Gaming Act, 1960, which made some changes in the laws restricting gambling.

Clubs and societies, which may be primarily social or devoted to some particular purpose, range from small informal groups to great national and international organisations with branches throughout the country. Organisations of national importance in social life and in the promotion of social gatherings include, in addition to those connected with religious denominations, the Working Men's Clubs and Institutes, the Townswomen's Guilds and the Women's Institutes. There are some 3,500 clubs, with over two million members (mainly but not entirely men), affiliated to the Working Men's Club and Institute Union. These clubs are primarily social and recreational, though they also arrange lectures and classes. Nearly 2,400 Townswomen's Guilds, with a total membership of about 203,000, are affiliated to the National Union of Townswomen's Guilds. The guilds are both educational and social in purpose, and they co-operate in many public welfare activities. The declared objective of the

National Federation of Women's Institutes is to improve rural life and amenities; the institutes make an important contribution to rural life by providing meeting places for countrywomen and by organising social gatherings. There are in villages throughout England and Wales some 4,526 institutes with nearly half a million members, while in Scotland and Northern Ireland there are Women's Rural Institutes with similar aims and interests.

In spite of the growth of social clubs, one traditional social rendezvous, the public house, has maintained and even increased its popularity both in towns and in villages, although there has been a marked decrease in drunkenness and in consumption of alcohol per head since the nineteenth century; the recent rise in drunkenness among adolescents, though serious, is on a relatively small scale. The public house attracts a very wide circle of casual customers (both men and women) as well as many 'regulars' who meet for a drink and a chat, and perhaps to play some traditional public house game or to watch television. A rival feature of urban life is the large number of small restaurants, milk bars and coffee bars. A characteristic of many of the coffee bars, which stay open until late at night and are popular as rendezvous for young people, is their modern décor. On the other hand, many people, especially the married and the elderly, spend much of their leisure at home—reading, listening to the radio, record-player or tape recorder, viewing television, entertaining their friends,¹ looking after pets² and pursuing hobbies. Hobbies are, of course, innumerable in their variety, but many are practical and contribute to the improvement of the home. About four out of five families do most of their own decorating, while the sales of hand-tools and the rapidly increasing sales of small power-tools and powered garden implements testify to the extent and range of home carpentry and joinery and to the interest and initiative that maintain Britain's homes and gardens. In spite of the high proportion of the population living in urban areas, at least every other family in Britain has some garden, and the standard of both town and country gardens is high. Some 4,000 local horticultural societies are affiliated to the National Allotment and Gardens Society and there are a large number of unaffiliated societies; altogether there are probably some 19 million spare-time gardeners. The numerous flower and vegetable shows held in town and country are very popular, and there is a large attendance at those held in London, particularly at the annual Chelsea Flower Show.

A number of people, young and old, find their main free-time interest in some form of sustained group activity connected, for example, with the churches, trade unionism, politics, social welfare and reform, or with cultural pursuits, especially amateur dramatics and music-making (see the Arts section of Chapter 8). People with such interests are still in a minority, but they constitute an important and characteristic feature of British life and, indeed, an essential ingredient in the working of British democracy.

¹ Indications of the rise in the scale and standard of home entertaining are provided by the increasing sales of table wines (double those of the 1930s) and of expensive foods, and by the frequent newspaper and periodical features and broadcast programmes devoted to cooking recipes.

² A sample survey in 1959 suggested that about a quarter of all homes had a caged bird, slightly over a fifth a cat, and slightly under a fifth a dog; there are probably some 4 million dogs in Britain, over 6 million cats and 8 or 9 million pet birds (mainly budgerigars).

2

GOVERNMENT

GENERAL SURVEY

The United Kingdom is a monarchical State, whose origins and traditions are to be found in the history of each of its four component parts: England, Wales, Northern Ireland and Scotland. England was unified under a Saxon king in the ninth century; Wales became part of that kingdom and Ireland was joined with it under the same king before the end of the thirteenth century; and the English and Scottish thrones were dynastically united in the person of James I and VI in 1603. In 1707 the Treaty for the Union of England and Scotland provided that the two countries 'should be forever united into one kingdom', and one Parliament (the Parliament of Great Britain) became the supreme authority in both countries. In 1801 the Act for the Union of Great Britain and Ireland, 1800, which joined the Irish Parliament to the Parliament of Great Britain, established the United Kingdom. In 1922 the 26 counties of Southern Ireland (now the Irish Republic) became a completely independent country, outside the United Kingdom. Meantime, the Government of Ireland Act, 1920, had enacted a constitution for Northern Ireland which perpetuated Northern Ireland representation in the United Kingdom Parliament as the supreme authority and, at the same time, provided that country with its own legislature and executive, to deal with domestic affairs.

The United Kingdom is a unitary, not a federal, State but methods of government are flexible and, to some extent, adapted to the needs of the constituent countries. Thus there is some measure of devolution in the administration of Welsh affairs under a Cabinet Minister (who is Minister for Welsh Affairs), assisted by a Minister of State, and advised by a Council for Wales as broadly representative as possible of all the main aspects of Welsh life and thought. England and Wales on the one hand, and Scotland on the other, continue as before the Union to have different systems of law, a different judiciary, different educational systems, different systems of local government, national churches on a different footing, and, for most domestic matters, different Government departments. The main Scottish departments are grouped under the direction of the Secretary of State for Scotland, who is a member of the United Kingdom Cabinet. In Northern Ireland the law is derived from and similar to the law of England but the judiciary is separate; the Northern Ireland Government departments are responsible to the Northern Ireland Parliament. The Channel Islands and the Isle of Man (which are Crown dependencies, not part of the United Kingdom) have their own legislative assemblies and systems of local administration and of law, and their own courts. At the same time, they have a special relationship with the United Kingdom because of their proximity to the mainland and the antiquity of their connection with the Crown. They are treated as part of the mainland for purposes of trade and postal communication and are 'territories for whose international relations Her Majesty's Government is responsible'. They are also formally subject to the United Kingdom Parliament.

The United Kingdom Parliament has the ultimate responsibility for the good government of a number of overseas dependencies within the Commonwealth, all of which are administered by territorial governments and are at various stages of development towards full self-government. The United Kingdom is also one of the independent member nations of the Commonwealth,¹ which all acknowledge the Queen as the symbol of their free association and, as such, the head of the Commonwealth; several of these independent countries owe allegiance to the Crown.

The United Kingdom constitution is formed partly by statute, partly by common law and partly by precepts and practices, known as conventions, which are not part of the law of the land in that violation of them may lead to proceedings in a court of law, but which are nevertheless indispensable to the machinery of government. The rules of the constitution have never been codified; principles and practice are both alterable, and the rules of the constitution can be adapted to changing conditions at any time by the passing of an Act of Parliament, or by the general acceptance of a new convention, without serious disturbance to existing organs and forms.

The organs of government in the United Kingdom constitution are readily distinguishable although their functions often intermingle and overlap. They are:

- (1) the legislature, which consists of the Queen in Parliament, and is the supreme authority in the realm;
- (2) the executive, which consists of: (a) the Cabinet and other Ministers of the Crown, who are responsible for initiating and directing national policy; (b) Government departments, most of them under the control of ministers and all staffed by civil servants, which are responsible for administration at the national level; (c) local authorities, which administer and manage many services at the local level; and (d) statutory boards, which are severally responsible for the operation of particular nationalised industries or public services, and which are subject to ministerial control in varying degrees; and
- (3) the judiciary, which determines common law and interprets statutes, and is independent of both the legislature and the executive.

The following pages will describe these three organs of government in some detail in order to show how the constitution of the United Kingdom works.

THE MONARCHY

The monarchy is the most ancient secular institution in the United Kingdom. Its continuity has been broken only once in over a thousand years; and in spite of interruptions in the direct line of succession, the hereditary principle upon which it was founded has never been abandoned. Queen Elizabeth II is a descendant of the Saxon king, Egbert, who united all England in the year 829, and of Malcolm II, whose reign in Scotland (1005-34) was correspondingly important in that part of the realm.

According to the Royal Titles Act, 1953, the royal title in the United Kingdom is: 'Elizabeth the Second, by the Grace of God of the United Kingdom of Great Britain and Northern Ireland and of Her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith'. The form of the royal title is varied for the other member nations of the Commonwealth which owe allegiance to the Crown, to suit the particular circumstances of each.

¹ The other members are: Canada, Australia, New Zealand, India, Pakistan, Ceylon, Ghana, the Federation of Malaya, the Federation of Nigeria, Cyprus, Sierra Leone, Tanganyika, Jamaica, Trinidad and Uganda.

The seat of the monarchy is in the United Kingdom, the Queen being represented by a Governor in Northern Ireland. For the performance of royal functions in the Channel Islands and the Isle of Man the Queen is represented by a Lieutenant-Governor. In the other member nations of the Commonwealth which owe allegiance to the Crown the Queen's representative is the Governor-General, who is appointed by the Crown on the advice of the ministers of the country concerned and is wholly independent of the United Kingdom Government. In the United Kingdom dependencies the Queen is usually represented by Governors (but in some cases by High Commissioners, Administrators or Residents), who are appointed by the Crown, have varying executive and legislative powers, and are responsible to the United Kingdom Government for the good government of the countries concerned.

Succession

The title to the Crown derives from the Act of Settlement, 1701, which provided that 'the Crown . . . shall remain and continue to the said most excellent Princess Sophia¹ and the heirs of her body being Protestants'. Subsequent Succession to the Crown Acts have confirmed this declaration; and although succession is not bound to continue in its present line, it cannot now be altered (under a provision of the Statute of Westminster, 1931) except by common consent of the member nations of the Commonwealth which owe allegiance to the Crown.

The inheritance of the Crown is governed by rules of descent, which provide that the sons of the Sovereign are in Order of Succession to the Throne according to their seniority or, if there are no sons, the daughters in order of their seniority. When a daughter succeeds, she becomes Queen-Regnant and the powers of the Crown are vested in her as fully and effectively as though she were a king. By convention, the consort of a king takes the rank and style of her husband; but the converse does not apply and the constitution has never attached any special rank or privileges to the husband of the Queen-Regnant.

Accession

There is no interregnum between the death of one Sovereign and the accession of another. Immediately on the death of his or her predecessor the new Sovereign is proclaimed at an Accession Council to which all members of the Privy Council are summoned. The Lords Spiritual and Temporal, the Lord Mayor, aldermen and other leading citizens of the City of London, and the High Commissioners in London of the member nations of the Commonwealth are also invited to attend.

Coronation

The coronation of the Sovereign follows the accession after an interval which may last for a year or more. The ceremony has remained much the same in substance for nearly a thousand years although the details have frequently been modified to bring it into conformity with the customs of the time. The service used at the coronation of Queen Elizabeth II in 1953 was derived from that used at the coronation of King Edgar at Bath in the year 973.

The coronation service is held at Westminster Abbey in the presence of representatives of the Lords, the Commons and all the great public interests in the United Kingdom, of the Prime Ministers and leading members of the other Commonwealth countries and of representatives of foreign States.

¹ The Electress of Hanover, grand-daughter of James I.

Acts of Government

The Queen is the personification of the State. In law, she is the head of the executive, an integral part of the legislature, the head of the judiciary in England and Wales, Northern Ireland, and Scotland, the commander-in-chief of all the armed forces of the Crown and the temporal head of the established Church of England. In practice, as a result of a long evolutionary process during which the absolute power of the monarchy has been progressively reduced, the Queen acts only on the advice of her ministers which she cannot constitutionally ignore. She reigns, but she does not rule. The United Kingdom is governed by Her Majesty's Government in the name of the Queen.

Within this framework, and in spite of the fact that the trend of legislation during the past hundred years has been to assign powers directly to ministers without any necessity for royal intervention, there are still important acts of government which require the participation of the Queen.

The Queen summons, prorogues and dissolves Parliament; as a general rule she opens the new session with a speech from the throne (although this may be read by the Lord Chancellor if the Queen is unable to be present); and she must give Royal Assent before a Bill which has passed all its stages in both Houses of Parliament becomes a legal enactment. The Queen is 'the fountain of justice', and as such, can remit all or part of the penalties imposed on people convicted of crime. As 'the fountain of honour', the Queen confers peerages, baronetcies, knighthoods and other honours,¹ and makes appointment to all important State offices, including those of judges, officers in the armed forces, governors, and diplomats, and to all leading positions in the established Church of England. The Queen's consent and approval are required before a minister can take up office or a Cabinet be formed. In the realm of international affairs, by virtue of her pre-eminence as head of the State, the Queen has the power to conclude treaties, to cede or accept territory, to declare war and to make peace.

These and similar acts of government involve the use of the royal prerogative² which has been defined as 'the residue of discretionary authority legally left in the hands of the Crown'. Ministerial responsibility for the exercise of this authority is shown in the three constitutional ways in which the royal will can be expressed: by Order in Council made 'by and with the advice of the Privy Council'; by Order, Commission or Warrant signed personally by the Queen and generally bearing the signature of one or more responsible ministers; or by Proclamation, Writs, Letters Patent, or other documents under the Great Seal affixed by the Lord Chancellor in obedience to a Royal Warrant countersigned by a minister.

Ministerial responsibility for the exercise of powers by the Crown does not detract from the importance of the participation of the Sovereign in the smooth working of government; for although the Queen has no personal authority and must show complete impartiality in every field, she must be informed and consulted on every aspect of the national life. The Queen holds meetings of the Privy Council, gives audiences to her ministers and other holders of office at home and overseas,

¹ Most honours are conferred by the Sovereign on the advice of the Prime Minister; a few, i.e. the Order of Merit, the Order of Companions of Honour, the Royal Victorian Order, the Most Noble Order of the Garter, and the Most Noble and Most Ancient Order of the Thistle, are in the Sovereign's personal gift.

² Other powers of the Crown relate to the creation of corporations by Royal Charter; the construction and supervision of harbours; the guardianship of infants; the administration of charities; coinage; the grant of franchises, e.g., markets, ferries and fisheries; the right to treasure trove; and the right of printing or licensing others to print the Bible, the Book of Common Prayer and State papers.

receives accounts of Cabinet decisions, reads dispatches and signs innumerable State papers.

Such is the significance attached to these royal functions that provision has been made by Acts of Parliament for a Regent to be appointed to fulfil them if the Sovereign is totally incapacitated, or is under the age of eighteen on accession to the throne. The latest of these Acts—the Regency Act, 1953—laid down that the first potential Regent should be the Duke of Edinburgh and thereafter the Princess Margaret and then those in succession to the throne who are of age. In the event of the Sovereign's partial incapacity or absence abroad, provision is made for the appointment of Counsellors of State (generally speaking, the wife or husband of the Sovereign, and the four adult persons next in succession to the Crown¹) to whom the Sovereign may delegate by Letters Patent certain royal functions. But Counsellors of State may not, for instance, dissolve Parliament (except on the express instructions of the Sovereign), nor create peers.

Ceremonial and Royal Visits

Ceremonial has always been associated with the kings and queens of the British Isles and, in spite of the changes that have taken place with the altered outlook of both the Sovereign and the people, certain customs and usages are the same today as they were many centuries ago. Royal marriages, the birth of royal children and royal funerals are still marked by ancient ceremonial, although to a lesser degree than in former days; and the birthday of the Sovereign, formerly the occasion of many royal and public functions, is today officially celebrated early in June by Trooping the Colour on the Horse Guards Parade. State banquets still take place when a foreign monarch or head of State visits the United Kingdom; investitures are still held at Buckingham Palace; and royal processions continue to grace such social occasions as the Ascot Race Meeting, known as Royal Ascot, and to add significance to the opening of Parliament, when the Queen drives in state from Buckingham Palace.

The Sovereign is the leader of society by order of general precedence dating from the fourteenth century and sustained until the present day by royal ordinances, ancient usage, established custom and the public will. The Queen and other members of the royal family visit many parts of the United Kingdom every year, and their presence at the inauguration of scientific, artistic, industrial, and charitable works of national importance ensures nation-wide interest and support. They also pay State visits to foreign Governments and undertake lengthy tours in other countries of the Commonwealth.

PARLIAMENT

The supreme legislative authority in the United Kingdom is the Queen in Parliament, that is to say, the Queen and the two Houses of Parliament—the House of Lords and the elected House of Commons.

The three elements of Parliament are outwardly separate: they are constituted on different principles; they do different work in different places and they meet together only on occasions of symbolic significance such as the coronation, or the opening of Parliament by the Queen in person, when the Commons are summoned by the Queen to the House of Lords. As a law-making organ of State, however, Parliament is a

¹ The Regency Act, 1953, provided that Queen Elizabeth the Queen Mother should be added to the persons to whom royal functions may be delegated as Counsellors of State.

corporate body and cannot legislate without the concurrence of all its parts (except in the case of Bills passed under the Parliament Acts, 1911 and 1949).

The Parliament at Westminster is representative of all the countries of the United Kingdom. It can legislate for the United Kingdom as a whole, for any of the constituent countries separately, or for any combination of them. It can also legislate for the Channel Islands and the Isle of Man, but in these islands and in Northern Ireland it is not the only legislature, for the Northern Ireland Parliament has power to legislate for Northern Ireland on most domestic subjects (see p. 42), and the ancient legislatures of the two Channel Island Bailiwicks (the States of Jersey and the States of Guernsey) and of the Isle of Man (the Tynwald Court) legislate on domestic matters.¹ Nevertheless, the Parliament at Westminster retains supreme authority, and within practical limits there is nothing that it cannot legally do.

By the passing of the Parliament Act, 1911, the life of a United Kingdom Parliament was fixed at five years (although it is usually dissolved and a general election held before the expiry of the legal term); and since one Parliament cannot bind its successor (for otherwise the succeeding Parliament would not be sovereign or supreme), each assembly has a period of time of up to five years during which it may legislate exactly as it chooses. During its life, it can make or unmake any law; it can destroy by statute the most firmly established convention or turn a convention into binding law; it can legalise past illegalities and thus reverse the decisions of the courts; and it even has power to prolong its own life by legislative means beyond the normal period of five years without consulting the electorate.

In law, therefore, the supremacy of Parliament is absolute. In practice, Parliament does not exercise its supremacy in this way. Its members bear in mind the common law which has grown up in Britain throughout the centuries and they act as far as possible in accordance with precedent and tradition. Moreover, although the validity of an Act of Parliament that has been duly passed, legally promulgated and published by the proper authority cannot be disputed in the law courts, no Parliament would be likely to pass an Act which it knew would receive no public support. The system of party government in Britain ensures that Parliament legislates with its responsibility to the electorate in mind.

The Meeting of Parliament

A Parliament, in the sense of a parliamentary period, begins and ends with a proclamation made by the Sovereign on the advice of the Privy Council. Such a proclamation on the one hand dissolves an existing Parliament and, on the other, orders the issue of writs for the election of a new one and appoints the day and place of its meeting.

The resignation of a government usually entails the dissolution of Parliament. Formerly the death of a Sovereign also involved dissolution, but since 1867 the duration of Parliament has been independent of the demise of the Crown; both Houses stand adjourned on such an occasion only until their members have taken the oath of allegiance to the new Sovereign, which they do immediately after the Accession Council has made the order for proclamation.

The time between the meeting of a Parliament and its prorogation or dissolution is called a session. Parliament is usually prorogued by a commission under the Great

¹ The legislatures of the Channel Islands and the Isle of Man consist of the Queen, the Privy Council and the local assemblies. It is the duty of the Home Secretary, as the member of the Privy Council primarily concerned with island affairs, to scrutinise each legislative measure before it is submitted to the Queen in Council.

Seal (see p. 29), which appoints the day and place of its meeting in a new session. The date so appointed may be brought forward or deferred by a subsequent proclamation. The effect of a prorogation is at once to terminate all business (with certain minor exceptions) until Parliament is summoned again. A Bill not completed in one session must be reintroduced in the next, unless it is to be abandoned.

During a session either House may adjourn itself on its own motion to such date as it pleases. An adjournment does not affect uncompleted business. A reassembly of the House can be accelerated either by proclamation or by virtue of powers specially conferred by each House on its Speaker.

The average number of sitting days for the House of Commons is about 160, divided by custom into the following periods: one from November until Christmas lasting 30–40 sitting days, one from January to Easter of 40–50 sitting days, one from Easter until Whitsun of about 30 sitting days, and one from Whitsun until the end of July lasting about 40 sitting days. Nowadays, the session is sometimes concluded with a short period of up to 10 sitting days in October, after the long summer recess. The House of Lords sits, on average, for about 110 days.

The House of Lords

The House of Lords consists of just over 900 peers, as follows:

- (1) *The Lords Temporal*, sub-divided into (i) all hereditary peers of the realm,¹ except Scottish and Irish peers, (ii) all life peers created by the Crown under the Life Peerages Act, 1958, (iii) sixteen representative peers of Scotland, who are elected for each Parliament by all the holders of Scottish peerages in accordance with the provisions of the Treaty of Union, 1707, and (iv) nine Lords of Appeal in Ordinary ('Law Lords'), who are appointed under the terms of the Appellate Jurisdiction Act, 1876, to assist the House in the performance of its judicial duties and who remain members of the House after their retirement from office.
- (2) *The Lords Spiritual*, who are the Archbishops of Canterbury and York, the Bishops of London, Durham and Winchester, and the 21 most senior other diocesan bishops of the Church of England, according to seniority of appointment.

Temporal peerages (both hereditary and life) are conferred by the Sovereign on the advice of the Prime Minister. Hereditary peerages carry with them, for men over 21 years of age, a right to a seat in the House of Lords,² but, according to standing orders promulgated by that House in 1958, holders are asked at the beginning of each Parliament whether they will attend the sittings of the House as often as they reasonably can or whether they desire to be relieved of the obligation to attend. If they do so desire, they are requested to apply for leave of absence, either for the duration of the Parliament or for a shorter period, during which time they are expected not to attend the House.

¹ Including peerages of Great Britain (those created between the Treaty for the Union of England and Scotland in 1707, and 1800), and of the United Kingdom (those created after the Act for the Union of Great Britain and Ireland, 1800). By the Act for the Union of Great Britain and Ireland, the Irish peers were entitled to elect 28 representative peers as life members of the House of Lords, but no elections have been held since the creation of the Irish Free State (now the Irish Republic) in 1922, and no Irish representative peers now survive.

² Except for a peer who is disqualified as a person convicted of treason and felony who has not yet served his sentence or been pardoned, a member expelled by the House sitting as a court of law, unless pardoned, or a bankrupt.

Peers in constant attendance at the House of Lords are generally elder statesmen and others who have spent their lives in public service. They receive no salary for their parliamentary work, but they are entitled to travelling expenses from their homes to the Palace of Westminster (provided they attend at least one-third of the number of sittings), and (with the exception of the Lord Chancellor, the Lord Chairman of Committees and any member in receipt of a salary as the holder of a ministerial office) they may claim payment for expenses incurred for the purpose of attendance at the House (except for judicial sittings) within a maximum of three guineas a day.

The House of Lords is presided over by the Lord Chancellor, who sits on the woolsack and is *ex officio* Speaker of the House. The Crown, by commission under the Great Seal, appoints several peers to take their place on the woolsack as deputy speakers in the absence of the Lord Chancellor. The first of the deputy speakers is the Lord Chairman of Committees, who is appointed each session and takes the chair in all committees, unless the House otherwise directs. The permanent officers include the Clerk of the Parliaments, who is charged with keeping the records of proceedings and judgments and who pronounces the words of the Royal Assent to Bills; the Gentleman Usher of the Black Rod, who enforces the orders of the House; and the Serjeant-at-Arms, who attends the Lord Chancellor.

The House of Commons

The House of Commons is a representative assembly elected by almost universal adult suffrage and consists of men and women from all sections of the community. There are at present 630 seats in the House of Commons (511 for England, 36 for Wales, 71 for Scotland, 12 for Northern Ireland).

Members of the House of Commons receive a salary for their parliamentary work and hold their seats during the life of a Parliament. They are elected either at a general election, which takes place after a Parliament has been dissolved and a new one summoned by the Sovereign, or at a by-election, which is held when a vacancy occurs in the House as a result of the death of a member, or of his acceptance of office under the Crown,¹ or as a result of his elevation to the House of Lords.

The chief officer of the House of Commons is the Speaker, who is elected by the members as president of the House immediately after a new Parliament is formed. Other parliamentary officers of the House are the Chairman of Ways and Means, and the Deputy Chairman, both of whom may act as Deputy Speaker; these officers are elected by the House. Non-parliamentary or permanent officers of the House, i.e. those who are not members of Parliament, include the Clerk of the House of Commons, who is charged with such matters as keeping the records, endorsing Bills and signing orders; the Serjeant-at-Arms, who attends the Speaker in the House; and the Chaplain to the Speaker.

Parliamentary Electoral System

For electoral purposes the United Kingdom is divided into constituencies, each of which returns one member to Parliament. Permanent Boundary Commissions for England, Scotland, Wales and Northern Ireland keep constituencies constantly under review, submit periodic returns, and may, at any time, recommend changes in the boundaries of any particular constituency or constituencies if, for instance, movement of the population has made this necessary. Changes in the boundaries of constituencies

¹ If a member wishes to resign from the House, he accepts what is technically office under the Crown.

which came into effect for the 1955 general election increased the number of seats in the House of Commons from 625 to the present figure of 630.

The law relating to parliamentary elections is contained principally in the Representation of the People Act, 1949, which repealed and re-enacted in a single statute previous legislation relating to the franchise, the conduct of elections and corrupt and illegal electoral practices. Under the provisions of this Act, election to the House of Commons is decided by secret ballot in which British subjects (except members of the House of Lords) and citizens of the Irish Republic are entitled to vote (although voting is not compulsory), provided that they are 21 years old or over, and are not subject to any legal incapacity to vote. Those eligible to vote in any constituency are those who are on the register¹ of electors for the constituency and are resident there on a date fixed by statute. Electors normally vote in person at polling stations especially established for the purpose, although members of the armed forces, Crown servants of the United Kingdom employed overseas, and the wives of such persons if resident overseas with their husbands may vote by proxy. Voting by post, or in certain cases by proxy, may also be allowed if the voter cannot attend in person for such reasons as physical incapacity or the nature of his work. Any person, male or female, who is a British subject of 21 years of age or over and is not otherwise disqualified, may be elected to the House of Commons. Categories of persons disqualified for election include peers² (other than certain Irish peers), clergy of the Church of England, the Church of Scotland, the Church of Ireland, and the Roman Catholic Church, undischarged bankrupts, and those expressly precluded under the House of Commons Disqualification Act, 1957 (for instance, holders of judicial offices, civil servants, members of the regular armed forces and the police forces, members of the legislature of any country or territory outside the Commonwealth, and holders of other public offices listed in the Act).

Parliamentary Privilege

Each House of Parliament enjoys certain privileges and immunities designed to protect the House from unnecessary obstruction in carrying out its duties. These privileges apply collectively to each House and individually to each member.

In the House of Commons, the Speaker formally claims from the Crown for the Commons 'their ancient and undoubted rights and privileges' at the beginning of each Parliament. These include freedom from arrest in civil proceedings for a period from forty days before to forty days after a session of Parliament; freedom of speech in debate; and the right of access to the Crown, which is a collective privilege of the House. Further privileges include the right of the House to control its own proceedings (so that it is able, for example, to exclude strangers if it so wishes); the right to pronounce upon legal disqualifications for membership and to declare a seat vacant on such grounds; and the right to penalise those who commit a breach of its privileges.

The privileges of the House of Lords are: freedom from civil arrest; freedom of speech in debate; freedom of access to the Sovereign for each peer individually; and

¹ A register containing the names of all electors, prepared for each constituency and published yearly by registration officers, who in England and Wales are usually the clerks of local councils and in Scotland are the land valuation assessors.

² A committee of both Houses of Parliament has been set up to consider the right of peers inheriting titles to sit in either House and to vote in parliamentary elections.

the right to commit for contempt. These privileges are not formally claimed by the Speaker as in the House of Commons; they exist independently without grant.

The Party System

The party system has existed in one form or another since the seventeenth century, and has now become an essential element in the working of the constitution.

The present system is based upon the existence of organised political parties, each laying rival policies before the electorate. Whenever there is a general election or a by-election, the parties may put up candidates for election; any other citizen who wishes may also stand.¹ The electorate then indicates, by its choice of candidate at the poll on election day, which of the opposing policies it would like to see put into effect.

The party which wins the majority of seats (although not necessarily the majority of votes) at a general election, or which is able to command a majority of supporters in the House of Commons, forms the Government. By tradition, the leader of the majority party is appointed as Prime Minister by the Sovereign, usually on the advice of the retiring Prime Minister; and its most outstanding members in the House of Lords and the House of Commons receive ministerial appointments on the advice of the Prime Minister. The largest minority party becomes the official Opposition with its own leader and its own council of discussion or 'shadow Cabinet'; while the members of any other parties or any Independents who have been elected may support the Government or the Opposition according to their party's or their own view of the policy being debated at any given time.

In the general election held in October 1959, 78.7 per cent of the electorate voted, compared with 83.6 per cent in 1950, 81.9 per cent in 1951 and 76.8 per cent in 1955. The number of votes cast for the principal parties is shown in Table 3.

TABLE 3
VOTES CAST AT GENERAL ELECTIONS 1950-59

Party	1950 (a)	1951 (a)	1955	1959
Conservative and supporters ..	12,501,983	13,724,418	13,310,891	13,750,965
Labour (and Co-operative) ..	13,295,736	13,948,385	12,405,254(b)	12,216,166
Liberal	2,621,489	730,551	722,402	1,640,761
Communist	91,815	21,640	33,144	30,897
Others(c)	258,454	177,329	288,038	223,949

(a) Figures for 1950 and 1951 exclude those few constituencies for which candidates were returned unopposed. All seats were contested in 1955 and 1959.

(b) Includes Northern Ireland Labour (35,614).

(c) 'Others' include Welsh and Scottish Nationalists, Independent Labour, other Independents, Irish Labour, Irish Nationalist, Irish Anti-Partitionist, and Sinn Fein.

¹ In the general election of October 1959 nearly all constituencies were contested by Labour and Conservative candidates; Liberal candidates numbered 216. The number of Independents and of candidates representing other political parties was very small.

The distribution of seats in the House of Commons resulting from the general elections of 1955 and 1959 is shown in Table 4.

TABLE 4
MEMBERS ELECTED AT GENERAL ELECTIONS IN 1955 AND 1959

1955				1959			
Conservative and supporters			347	Conservative and supporters			365(a)
Labour	..	..	277	Labour	..	..	258
Liberal	..	..	6	Liberal	..	..	6
				Independent	..	..	1
			630				630

(a) A majority of 100 over all other parties. This was the first time since the establishment of the modern party system in Britain in the nineteenth century that a party had increased its parliamentary strength in four successive general elections and the first time that a party had retained office after being in power for the duration of two full Parliaments.

The effectiveness of the party system in Parliament rests to a considerable extent upon the fact that Government and Opposition alike are carried on by agreement: that is to say, the minority agrees that the majority must govern and therefore accepts its decisions; and the majority agrees that the minority should criticise and therefore sets time aside for that criticism to be heard. The detailed arrangements of Government business are settled, under the Prime Minister and the Leader of the House (who may be the Prime Minister or some other minister), by the Government Chief Whip in consultation with the Opposition Chief Whip. The Chief Whips together form the 'usual channels' often referred to in the House of Commons when the question of the possibility of finding time for debating some particular issue is being discussed. The direction of the business of the House is primarily the responsibility of the Leader of the House, and it is his duty to provide all reasonable facilities for the House to debate matters about which it is concerned.

Outside Parliament, party control is exercised by the national and local organisations. Inside Parliament, it is exercised by the Whips (the Chief Whips and their assistants, chosen within the party or by the Prime Minister for the Government party), whose duties include maintaining the voting strength of their parties by ensuring the attendance of members at important debates. The Opposition Whips have no official position, but the Government Chief Whip in the House of Commons is the Parliamentary Secretary to the Treasury and of the other Government Whips, five hold titular posts as Junior Lords of the Treasury, three are officers of the Royal Household and five are unpaid. There are also Government and Opposition Whips in the House of Lords. The former, who hold offices in the Royal Household, sometimes act as spokesmen for the Government in debates.

The Functions of Parliament

The main functions of Parliament are (1) to make laws regulating the life of the community, (2) to take formal action, cast in legislative form, to make available finance for the needs of the community and to appropriate the funds necessary for the services of the State, and (3) to criticise and control the Government. By custom, Parliament is also consulted before the ratification of certain international treaties and agreements

(in spite of the fact that the making of treaties is a royal prerogative exercised on the advice of the Government and, in theory, is not subject to parliamentary approval).

Parliamentary Procedure

Both Houses of Parliament have their own standing orders, but procedure is based on custom and precedent (much of which dates back to the beginning of the sixteenth century and even earlier) rather than on the written orders, which merely supplement the practice in each House. The system of debate is much the same in the two Houses: for instance, every matter is determined upon questions put from the chair or woolsack and resolved in the affirmative or negative, as the case may be; members speak from wherever they have been sitting and not from a rostrum; and members do not read their speeches. The main difference is that in the House of Commons the Speaker has a far greater measure of control.

In the House of Lords the office of Speaker carries with it no inherent authority to check or curtail debate, such matters being decided by the general sense of the House. In the Commons, on the contrary, the Speaker has full authority to give effect, promptly and decisively, to the rules and orders of the House. He must carefully guard against abuse of procedure or any infringement of minority rights, and it is his duty to allow or disallow any closure motion (i.e. a motion to curtail or end discussion so that the matter may be put to the vote). He has certain powers to check irrelevance and repetition in debate, and to save the time of the House in various other respects. In cases of grave disorder, he has power to adjourn the House or suspend the sitting on his own initiative.

Voting in the House of Commons is carried out under the direction of the Speaker, and it is his duty to pronounce the final result. If an equal number of votes is cast, the Speaker must give the decisive vote; he does this (if possible) in such a way as to avoid change and leave the question to be debated on another occasion. The procedure on voting in the House of Lords is similar to that in the House of Commons, but the Speaker or chairman has no casting vote. With the exception of questions relating to Bills and delegated legislation, the House of Lords is governed by the principle that unless there is a majority in favour, the question is decided in the negative. When the House is sitting judicially (see pp. 85 and 88) the question is put in such a way that, if the votes were equal, there would be no interference with the order under appeal.

As a rule, all proceedings of either House are public (the right to debate in secret is exercised only rarely), and a full record is published daily in the official reports, *Parliamentary Debates (Hansard)*.

Legislation

Legislation can be initiated from either side of either House; but no Bill involving taxation or the spending of public money can proceed very far unless the Government agrees to introduce a 'financial resolution' to cover it. This has the effect of giving the Government exclusive rights over a wide field of legislation, and as a result most Public Bills are presented by the Government. However, private members (i.e. members of the House who are neither office holders in the Government nor Opposition leaders) can introduce Public Bills on their own initiative, and such Bills can be debated on certain days expressly set aside for the purpose in each session.¹ Peers can

¹ Private members also have the right of moving for leave to introduce Bills after question time (see p. 41) on certain days under the 'Ten Minute Rule', i.e. the Standing Order which allows a brief speech proposing and another opposing the introduction of the Bill before the House decides whether or not to grant leave.

introduce Public Bills in the House of Lords at any time during a session without notice. In addition, persons and bodies outside Parliament can promote Private Bills relating solely to matters of individual, corporate or local interest.

Bills may originate in either House, unless they deal with finance or representation when they are always introduced in the Commons. As a rule, however, Bills likely to raise political controversy go through the Commons before the Lords, while those of an intricate but uncontroversial nature are frequently introduced and fully debated in the Lords before being sent to the Commons.

The process of passing a Public Bill is basically the same in the House of Lords as in the House of Commons. The Bill receives a formal First Reading on introduction; it is then printed; and after a period of time (which varies between one day and several weeks depending on the nature of the Bill) it may be given a Second Reading after the result of a debate on its general merits or principles. In the Commons, it is then referred for detailed examination either to a standing committee or, if the House so decides, to the whole House sitting in committee; and, in the Lords, to a committee of the whole House. When the committee stage is finished, the Bill is reported to the House, and a further stage takes place during which the committee's amendments may be altered, additional amendments may be suggested and incorporated, and, if necessary, the Bill may be recommitted to committee. Finally, it is submitted for a Third Reading and, if passed, it is sent on from the Commons to the Lords or from the Lords to the Commons (depending on its place of origin), where it enters on the same course again. Any amendments which the second House makes to the Bill must be agreed to by the first House, or a compromise reached, before the Bill becomes law.

In practice, the Lords pass without amendment all financial Bills, such as the Finance Bill, which authorises annual taxation and amends existing taxation, and the Appropriation Bill, which authorises expenditure on the Supply Services from the Consolidated Fund.¹ As a general rule, these Bills are introduced upon resolutions in a committee of the whole House of Commons and they may be initiated only by a Minister of the Crown.

When Bills have passed through their various parliamentary stages, they are sent to the Sovereign for Royal Assent, now usually given by commission. The Sovereign's power to refuse assent has not been exercised since the early eighteenth century.

The majority of Bills introduced in the House of Lords pass through the Commons without difficulty because of their non-controversial nature; they are then returned to the Lords to be brought forward for Royal Assent. However, should any Lords Bill be unacceptable to the Commons, it would never reach the Statute Book, for no debating time would be allotted to it—at any rate until a new government came into power, when it might be revived. The Lords, on the other hand, are unlikely to be able to prevent a Bill insisted upon by the Commons from finally becoming law. In the normal course of events, they either accept a Bill from the Commons and return it unchanged; or they revise and improve it by amendments and return it for the consideration of members of the other House, who frequently agree to the amendments made. The Lords cannot require the Commons to agree to amendments; nor can they delay a Bill indefinitely. They have no powers in respect of Money Bills; and since the passing of the Parliament Act, 1949, any other Public Bill which has been passed by the House of Commons in two successive sessions may be presented for

¹ It is provided in the Parliament Act, 1911, that all Money Bills sent to the House of Lords one month before the end of the session shall receive the Royal Assent notwithstanding, if they are not passed by the Lords without amendment within the month.

Royal Assent without the consent of the Lords, provided that a year has elapsed between the date of the Second Reading of the Bill in the Commons and the date on which it is finally passed in that House. These limitations to the powers of the Lords are based on the belief that the chief value of the Upper House, which is a non-elected assembly, lies in bringing the wide experience of its members into the legislative process, not in thwarting the elected House. In other words, proceedings in the House of Lords give time for further reflection, and often elicit new points of view.

In substance, a Private Bill goes through the same procedure as a Public Bill, but most of the work is done in committee where the promoters must prove the need for the powers or privileges that they seek and where any objections raised by opposing interests may be heard.

Parliamentary Committees

A committee of the whole House is the House itself, presided over by a chairman instead of the Speaker. Its function is to consider Bills in detail, clause by clause, after their Second Reading. The Committees of Supply and of Ways and Means are committees of the whole House of Commons, which discharge the financial duties of the House concerning the grant of public money and the levying of taxation.

There are two other main kinds of parliamentary committee, both of which exist to a varying degree to relieve their parent House of some of its more specialised and complex work. They are:

- (1) Standing Committees, which are appointed by the House of Commons as necessary, for the consideration of Public Bills and, in the case of the Scottish and Welsh Grand Committees, other business committed to them. With the exception of the Scottish Standing and Grand Committees¹ (which deal with Public Bills and other matters relating to Scotland), and the Welsh Grand Committee² (which considers the annual report for Wales and certain selected subjects for debate), each standing committee consists of from twenty to fifty members nominated by the Committee of Selection (a body normally consisting of eleven members drawn from the main parties in the House at the beginning of each session); in all cases the parties are represented in proportion to their numbers in the House. The procedure of a standing committee is generally similar to that of a committee of the whole House.
- (2) Select Committees, including joint select committees of both Houses, which are appointed to inquire into and report to the House on special matters. Some of these, such as the Select Committee on Statutory Instruments, and on the nationalised industries, tend to be re-appointed each session; some are set up automatically by standing order, such as the Committee of Public Accounts and the Estimates Committee; others are set up as and when required.

Various other committees exist to deal with Private Bill legislation. There are also a number of unofficial committees, consisting either of one party or of members of all parties, such as study groups concerning themselves with particular issues, e.g., the Parliamentary and Scientific Committee; and parliamentary party committees,

¹ The Scottish Standing Committee consists of thirty members nominated from Scottish constituencies with up to twenty other nominated members; in its plenary form it is known as the Scottish Grand Committee, with all the members for the Scottish constituencies and not more than fifteen others.

² The Welsh Grand Committee consists of 36 members for constituencies in Wales and Monmouthshire, with up to 25 other nominated members selected in order to make the balance of parties in the committee approximate to that in the whole House.

e.g., the Labour Policy Committee, and the Conservative and Unionist Members Committee, popularly known as the 1922 Committee.

Delegated Legislation

Delegated legislation, which is legislation not by the direct functioning of Parliament, but by powers conferred on the executive by Act of Parliament (or, more rarely, by royal prerogative), has been part of the parliamentary system for at least six hundred years. Parliament, however, made but sparing use of its power to delegate legislation (except during a period of social, political and economic change in the second half of the fifteenth and most of the sixteenth centuries) until the end of the nineteenth century, when a changing conception of the part that should be played by the State in the life of the community made inroads upon parliamentary time and thus caused the system to be adopted on a more extensive scale. With the ever-increasing scope of Government activity during the past sixty years, pressure on parliamentary time has become even more acute; as a result, the system of delegated legislation created under statutory powers has become generally accepted.

The system of delegated legislation empowers ministers and other authorities to regulate administrative details after a Bill has become an Act. Its advantages are said¹ to be: (1) that it shortens and clarifies Bills before Parliament, thus enabling Parliament to deal with a greater volume of business and to give fuller attention to matters of policy and principle which are its primary concern; (2) that it encourages flexibility, in that administrative details can be worked out as and when the necessity arises 'with greater care and minuteness, and with better adaptation to local and other special circumstances than they possibly can be during the passage of a Bill through Parliament'; (3) that it is invaluable in an emergency, for it is 'the means by which the legislature can dispense with its own deliberative procedure and arm the executive with power to take immediate action'; and (4) that it provides a speedy, convenient and accurate means of giving effect to the policy of Parliament.

In order to minimise the risk—inherent in the system—that delegated legislative powers might supersede or weaken parliamentary government, such powers are normally delegated to the Queen in Council or to authorities directly responsible to Parliament, i.e. to Ministers of the Crown, to Government departments for which ministers are responsible, or to organisations whose legislation is subject to confirmation or approval by ministers who thereby become responsible to Parliament for it. Moreover the Act which delegates legislative power generally defines the precise limits of this power and, in the more important cases, gives Parliament the right to confirm or annul the statutory instruments² by which delegated legislation is enacted. Certain Acts also require direct consultation with organisations which will be affected by delegated legislation before such legislation is made.

The House of Commons is aided in its supervision of delegated legislation by the Select Committee on Statutory Instruments, which is set up each session to report on the unusual or unexpected use of statutory powers. The Special Orders Committee of the House of Lords examines and reports on all Statutory Instruments requiring affirmative resolution.

¹ From an official minute written in 1893 and quoted in *Concerning English Administrative Law*, by Sir Cecil Carr. Oxford University Press. 1942. pp. 33-34.

² Statutory instruments are made in accordance with the provisions of the Statutory Instruments Act, 1946, which repealed and replaced the Rules Publication Act, 1893. Instruments of delegated legislation made under the Act of 1893 were known as 'statutory rules and orders' ('S.R. & O.').

Parliamentary Control

Parliament's function of controlling the Government in power is exercised in the final analysis by the power of the House of Commons to pass a resolution of 'no confidence' in the Government, or to reject a proposal which the Government considers so vital to its policy that it has made it a 'matter of confidence', thus forcing the Government to resign.

The financial control necessary to ensure that money shall be spent only with the authority of Parliament and for the purposes authorised by Parliament is described in Chapter 13, Finance. Methods of general control are provided by:

- (1) the institution of Question Time, which is a daily hour of parliamentary time during which ministers, in rotation, answer questions put to them on matters for which they are responsible, thus focusing the attention of the public on the day-to-day processes of government;
- (2) the practice whereby the consideration of the Estimates, in Committee of Supply, has ceased to be a consideration of the financial requirements of the Government and has become an occasion for the examination initiated by the Opposition, of some aspect of the Government's administrative policy which has been included in the Estimates;
- (3) the practice of bringing on a debate later in the same day by moving the adjournment of the House, which is permitted only if the matter is deemed by the Speaker to be definite, urgent, of public importance, and to be the responsibility of the Government, and if 40 members rise in their places to support the demand for a debate, or 10 members rise and the House grants leave on a division;
- (4) the right of members to raise any matter on the motion for the adjournment of the House at the end of each day's sitting; and
- (5) the power of either House to confirm or annul some statutory instruments.

In addition, Government policy and action are fully discussed in the important debates which take place during the proceedings at the opening of Parliament and in the motion for the adjournment of the House before a recess.

Public Interest in Parliament

The public's interest in the work of Parliament is shown by the queues which form outside the Houses of Parliament for admission to the public galleries, by the growth in the circulation of the daily official report (*Hansard*) which at present is between three and four times the pre-war figure, and by the large audiences which listen to the regular broadcast programmes about parliamentary proceedings.

The major news agencies and national newspapers have special parliamentary correspondents to report on parliamentary activities. A television broadcast of the State opening of Parliament was transmitted for the first time in 1958. The Hansard Society for Parliamentary Government, an unofficial non-party educational society which was founded in 1944, continues to promote interest in parliamentary affairs.

The Northern Ireland Parliament

The Parliament of Northern Ireland consists of the Sovereign, a Senate and a House of Commons. The Sovereign is represented in Northern Ireland by a Governor, who summons, prorogues and dissolves Parliament in Her Majesty's name; the Senate is composed of two *ex officio* senators (the Lord Mayor of Belfast and the Mayor

of Londonderry) together with 24 senators who hold office for an eight-year term, 12 being elected by the House of Commons every four years according to the principle of proportional representation; and the House of Commons consists of 52 members, elected by a system of parliamentary franchise similar to that which operates in Great Britain. The House, unless sooner dissolved, continues in existence for a period of five years.

The Northern Ireland Parliament has power to make laws for the peace, order and good government of Northern Ireland in relation to all matters except those especially reserved to the Parliament of the United Kingdom, i.e. the Crown or succession to the Crown; foreign relations; defence; the postal services; the Supreme Court; customs and excise; income and profits taxes; coinage; standards of weights and measures; trade marks; submarine cables; wireless telegraphy; aerial navigation; and lighthouses, buoys and beacons. Under the constitutional practices which have developed since the passing of the Government of Ireland Act, 1920, the United Kingdom Parliament does not legislate on matters within the powers of the Northern Ireland Parliament unless the Government of Northern Ireland requests that this should be done. But, because certain matters have been reserved to the United Kingdom Parliament, provision was made in the Government of Ireland Act, 1920, for the continued representation of the Northern Ireland constituencies in the House of Commons of the United Kingdom; in accordance with this provision, 12 members are returned to Westminster.

THE PRIVY COUNCIL

Until the eighteenth century, the Sovereign in Council, or Privy Council, was the chief source of executive power in the State. As the system of Cabinet government developed, however, the Privy Council declined in importance; many of its powers were transferred to the Cabinet, and much of its work was handed over to newly created Government departments. The present-day Privy Council exists mainly to give effect to policy decisions made elsewhere.

Apart from Cabinet Ministers, who must be Privy Counsellors and are sworn of the Council on first assuming office, membership of the Privy Council (which is retained for life) is accorded by the Sovereign on the recommendation of the Prime Minister as an honour to persons who have reached eminence in some branch of public affairs in any country of the Commonwealth. There are usually about 300 Privy Counsellors.

Procedure and Functions

The Privy Council is convened by the Clerk of the Council and is usually presided over by the Sovereign. Three Privy Counsellors form a quorum, but, as a rule, not fewer than four are summoned to attend. The whole Privy Council is called together only on the death of the Sovereign or when the Sovereign announces his or her intention to marry.

The Privy Council is responsible for the submission for the Sovereign's approval of Orders in Council, of which there are two kinds, differing fundamentally in constitutional principle: those made by virtue of the royal prerogative, for example, those embodying royal instructions to colonial Governors; and those which are authorised by Act of Parliament and are a form of delegated legislation. Members of the Privy Council attending meetings at which Orders in Council are made do not thereby become personally responsible for the policy upon which the orders are based;

this rests with the ministers in whose departments the draft orders were framed, whether they are present at the meeting or not. Certain Orders in Council must be published in the *London Gazette*, which is an official periodical published by the authority of the Government.

The Privy Council also advises the Crown on the issue of royal proclamations, some of the most important of which relate to prerogative acts (such as summoning or dissolving Parliament) of the same validity as Acts of Parliament.

Committees of the Privy Council

There are a number of Privy Council committees whose meetings differ from those of the full Privy Council in that the Sovereign cannot constitutionally be present. These committees, which have advisory functions, may be prerogative, such as the committee which deals with legislative matters submitted by the legislatures of the Channel Islands and the Isle of Man, and the committees for medical research, scientific and industrial research, agricultural research, overseas research, and nature conservation; or they may be provided for by statute as are those for the universities of Oxford and Cambridge and the Scottish universities, and that which deals with applications for the grant of charters to municipal corporations.

The administrative work of the Privy Council committees is carried out in the Privy Council Office under the control of the Lord President of the Council (see p. 45).

Judicial Committee

The Judicial Committee of the Privy Council is the final court of appeal from the courts of the United Kingdom dependencies and certain member States of the Commonwealth, deriving its appellate jurisdiction in respect of such appeals from the principle of English common law which recognises 'the right of all the King's subjects to appeal for redress to the Sovereign in Council' if they believe that the courts of law have failed to do them justice. The Judicial Committee is also the final court of appeal from the ecclesiastical courts of England, from the Channel Islands and the Isle of Man, and from prize courts¹ in the United Kingdom and colonies.

Appeals come to the Judicial Committee either where a right of appeal has been specially created, for example, by statute, Order in Council or Letters Patent, or by special leave of the Sovereign in Council on the advice of the Judicial Committee. They are heard by a board of the committee, whose members are generally selected from the Lord Chancellor, ex-Lord Chancellors and Lords of Appeal in Ordinary, although other members of the Privy Council who have held high judicial office (including Chief Justices and certain other judges from other Commonwealth countries who have been sworn of the Privy Council) may also be asked to sit when business is heavy. The Judicial Committee does not, in theory, deliver judgment. It advises the Sovereign, who acts on its report and approves an Order in Council to give effect thereto.

HER MAJESTY'S GOVERNMENT

Her Majesty's Government is the body of ministers charged for the time being with the administration of national affairs.

¹ Prize courts deal with matters concerning property captured in time of war which, by grace of the Crown, falls to the forces which assist in the capture.

Composition

The composition of the Government is subject to variation from time to time, both in the number of ministers and in the titles of some offices. The usual ministerial offices may be classified under the following heads:

1. *The Prime Minister*, who is the recognised head of the Government but has no department.
2. *Non-Departmental Ministers*, who include the First Secretary of State (a new appointment in 1962) and the holders of various traditional offices—the Lord President of the Council, the Chancellor of the Duchy of Lancaster,¹ the Lord Privy Seal, the Paymaster General (whose office is at present combined with that of Chief Secretary to the Treasury) and a Minister without Portfolio. These ministers have few or no departmental duties and are thus available to perform any special duties which the Prime Minister may wish to entrust to them. In the Government, as reorganised in July 1962, the First Secretary of State, who ranks next to the Prime Minister, is responsible for the Central African Office (see p. 52) and is the leader of the ministerial group charged with the oversight of Common Market negotiations; the Lord President of the Council has the general duty of promoting scientific and technological development as Minister for Science; the Chancellor of the Duchy of Lancaster is Leader of the House of Commons; the Lord Privy Seal handles Foreign Office business in the House of Commons, the Secretary of State for Foreign Affairs being a member of the House of Lords; the Chief Secretary to the Treasury and Paymaster General, under the general direction of the Chancellor of the Exchequer, deals with the whole range of public expenditure; and the Minister without Portfolio co-ordinates the Government information services at home.
3. *Departmental Ministers*, some of whom are known as Secretaries of State. There are at present six Secretaries of State—for the Home Department, Foreign Affairs, Scotland, Commonwealth Relations and Colonies, War, and Air. The more recently created posts usually have the formal title of Minister; an exception is the Secretary for Technical Co-operation. A few of the older posts have special titles: the Chancellor of the Exchequer (who is responsible for the Treasury and for a number of other departments); the President of the Board of Trade; the First Lord of the Admiralty; and the Postmaster General.
4. *The Lord Chancellor and the Law Officers*. The Lord Chancellor has departmental functions; he is also in a somewhat special position as a Minister of the Crown who is also head of the judiciary in England and Wales. The four Law Officers of the Crown are: for England and Wales, the Attorney General and the Solicitor General; for Scotland, the Lord Advocate and the Solicitor General for Scotland.
5. *Ministers of State*, who are additional ministers in Government departments where the work is particularly heavy and complex, or when it involves frequent travelling overseas. There are now two Ministers of State in the Foreign Office,

¹ The Duchy of Lancaster is an inheritance which, since 1399, has always been enjoyed by the reigning Sovereign; it is kept quite apart from his or her other possessions and is separately administered by the Chancellor.

one each in the Home, Commonwealth Relations and Colonial Offices, and two at the Board of Trade. In addition, the Secretary of State for Scotland is assisted by a Minister of State, and there is a Minister of State for Welsh Affairs.

6. *Junior Ministers*, who generally have the title of Parliamentary Secretary or, where the senior minister is a Secretary of State, Parliamentary Under-Secretary of State. The primary function of most junior ministers is to relieve their senior ministers of some of their burden by taking part in parliamentary debates and answering parliamentary questions, and by assisting in their departmental duties. The Parliamentary Secretary to the Treasury and the Junior Lords of the Treasury are in a different category as Government Whips.

The Prime Minister is appointed by the Crown, and all other ministers are appointed by the Crown on the recommendation of the Prime Minister.

The majority of ministers are members of the House of Commons, since the Government's continuance in office depends upon the maintenance of a majority in that House. There must, however, always be some ministers in the House of Lords, partly because the House of Commons Disqualification Act, 1957, limits the number of ministers who may sit and vote in the Commons while receiving salaries from the Crown, and also because every Government must be assured of spokesmen of standing to expound and justify its intentions and its actions to the House of Lords.

The Prime Minister

The head of the Government became known as the Prime Minister during the eighteenth century. The unique position of authority enjoyed by the holder of this office derives from his status as leader of the majority party in Parliament and from his power to submit his own choice of ministers to the Sovereign and to obtain their resignation or dismissal individually. In modern times the Prime Minister always holds the office of First Lord of the Treasury, and may also hold another portfolio. Since 1902 he has always been a member of the House of Commons.

It is the duty of the Prime Minister to inform the Sovereign of the general business of the Government; to preside over the Cabinet; and to exercise a general supervision over departments, settling departmental differences and approving important departmental decisions where reference to the Cabinet is not required. The Prime Minister speaks for the Government in the House of Commons on the most important topics and answers questions on its general administration in that House.

The Prime Minister's responsibilities include making recommendations to the Sovereign for the appointment of Church of England archbishops, bishops and certain other senior clergy and the incumbents of some 200 Crown livings, as well as for appointments to high judicial offices, such as Lords of Appeal in Ordinary, Lord Chief Justice and Lord Justices of Appeal. He also advises the Crown on appointments of Privy Counsellors, Lord Lieutenants of counties¹ and certain civil appointments, such as Lord High Commissioner of the General Assembly of the Church of Scotland, Poet Laureate, Constable of the Tower, and some university appointments which are in the gift of the Crown. The Prime Minister makes similar recommendations for appointments to various public boards and institutions, such as the National Assistance Board and the British Broadcasting Corporation, as well as to various royal and statutory commissions. In addition, he makes recommendations to the Sovereign for

¹ The office of Lord Lieutenant in the county was first created in the sixteenth century. Its holder was chief among the county justices and commander of the county militia.

the award of many civil honours and distinctions and of Civil List pensions. He selects the trustees of certain national museums and institutions.

The Cabinet

The Cabinet is composed of a number of ministers (usually about 20) who are selected by the Prime Minister personally. Its origins can be traced back to the informal conferences that the Sovereign held with his leading ministers, independently of the Privy Council, during the seventeenth century. After the Sovereign's withdrawal from an active role in politics in the eighteenth century, and the development of organised political parties stimulated by successive extensions of the franchise from 1832 onwards, the Cabinet assumed its modern form.

The functions of the Cabinet are¹: the final determination of the policy to be submitted to Parliament; the supreme control of the national executive in accordance with the policy agreed by Parliament; and the continuous co-ordination and delimitation of the authority of Government departments. The exercise of these functions is vitally affected by the fact that the Cabinet is a group of party representatives, depending for its existence upon the support of a majority in the House of Commons.

Cabinet Meetings

The Cabinet meets in private and its proceedings are strictly confidential. Its members are bound by their oath as Privy Counsellors not to disclose information about its proceedings. The Official Secrets Acts forbid the publication of Cabinet as well as of other State papers, and a resigning minister desiring to make a statement involving disclosure of Cabinet discussions must first obtain the permission of the Sovereign through the Prime Minister. The theoretical reason for this secrecy is that a Cabinet decision is advice to the Sovereign, whose consent is necessary before the decision is made public. From a practical point of view, secrecy is essential in the interests of unprejudiced discussion, which can take place only if there is no risk of publicity for every statement made and every point conceded.

In normal times the Cabinet meets for a few hours once or twice a week during parliamentary sittings, and rather less frequently when Parliament is not sitting. Additional meetings may be called by the Prime Minister at any time, if a matter urgently requiring discussion should arise. During Cabinet meetings decisions are reached on major issues of Government policy, and the Cabinet settles any matters which cannot be disposed of at lower levels.

The Cabinet carries on much of its work by means of a committee system which originated in the nineteenth century and has been developed to keep pace with Government business during the past sixty years. The system involves the reference of any issue either to a standing Cabinet committee or to an *ad hoc* committee composed of the ministers primarily concerned, which considers the matter in detail and either disposes of it or reports upon it to the full Cabinet with recommendations for action. Ministers not in the Cabinet are called to attend Cabinet meetings when matters affecting their departments are under discussion; they may also be members of Cabinet committees.

Detailed accounts of Cabinet meetings are not prepared; only the substance of documents submitted, together with a summary of the arguments and the conclusions, are recorded; even these records have a strictly limited circulation. Responsibility for the keeping of records lies with the Secretary of the Cabinet.

¹ As defined in the Report of the Machinery of Government Committee (the Haldane Committee), 1918, *Cd.* 9230.

Ministerial Responsibility

Ministerial responsibility means both the collective responsibility which ministers share for the policy and actions of the Government and the individual responsibility of ministers to Parliament for the work of their departments.

The doctrine of collective responsibility, which was fully accepted by the middle of the nineteenth century, imposes upon ministers the obligation to act not as individuals but (in the interests of stability of government) as a united group. It does not require every Cabinet minister to be present at every Cabinet meeting; and the obligations of individual ministers may be passive rather than active when the decision to be taken does not relate to their spheres of administrative responsibility. At the same time, every minister should be fully informed of the subject of discussion beforehand, so that if he has any objections he may voice them at the meeting. He may not repudiate, either in Parliament or in his constituency, policies which have received Cabinet approval, nor may he adopt policies that have not been agreed with the other departments concerned (including the Treasury). A minister must also be prepared to vote with the Government on all issues, and where necessary to speak in support or defence of its policy; if he feels himself unable to agree or to compromise with the view of the majority of his colleagues in Parliament or elsewhere he must resign. A minister who does not resign in these circumstances cannot later reject criticism on the ground that he did not personally agree with the policy adopted.

The doctrine of collective responsibility also means that the Cabinet is bound to offer unanimous advice to the Sovereign, even when its members do not hold identical views on a given subject.

The individual responsibility of a minister for the work of his department means that, as political head of that department, he is answerable for all its acts and omissions and must bear the consequences of any defect of administration, any injustice to an individual or any aspect of policy which may be criticised in Parliament, whether he is personally responsible or not. Since the majority of ministers are members of the House of Commons, they are available to answer questions and to defend themselves against criticism in person. Departmental ministers who are in the House of Lords must be represented in the Commons by someone qualified to speak on their behalf, usually their Parliamentary or Under-Secretaries.

Departmental ministers are expected to take the final decision on all matters relating to their spheres of administration, unless these are of such political importance that Cabinet sanction is required. If any departmental decision brings a minister under fire of criticism in Parliament he may be upheld by the Cabinet, which will then treat the matter as one of confidence in itself; or he may be disowned, when he alone will be liable to lose office.

The responsibility of ministers for their departments is an effective way of bringing government under public control, for the knowledge that any departmental action may be reported to and examined in Parliament discourages the taking of arbitrary and ill-considered decisions.

GOVERNMENT DEPARTMENTS

Government departments are the main instruments for giving effect to Government policy when Parliament has passed the necessary legislation. They may, and frequently do, work with and through local authorities, statutory boards, and government-sponsored organisations operating under varying degrees of Government control.

As a rule a change of Government does not immediately affect the number or general functions of Government departments, although a radical change in policy may be accompanied by some organisational change. The widening scope of government activity in the past half-century has, however, led gradually to the formation of many new departments. A few have existed for over 200 years.

The work of some departments, for instance the Post Office and the Board of Customs and Excise, covers the United Kingdom as a whole. Other departments, for example the Ministry of Labour, cover Great Britain (England and Wales, and Scotland, but not Northern Ireland); others, such as the Ministry of Health, cover England and Wales only, and there are similar but separate departments for Scotland and Northern Ireland. Some departments, for instance the Ministry of Education, make special arrangements for Welsh affairs.

As a rule a department is headed by a minister. In the case of certain departments in which questions of policy do not normally arise, the head is a permanent official, and a minister with other duties is responsible for them to Parliament. For instance, Treasury ministers are responsible for a number of departments, including H.M. Stationery Office, the Central Office of Information, the Treasury Solicitor's Department, the Department of the Government Actuary, the Royal Mint, the National Debt Office, the Public Works Loan Board, and the National Savings Committee. The staff of departments are all members of the Civil Service, a body of Crown servants recruited into the service as a career.

Departments differ in size and in the volume, type and complexity of their work. Internal organisation varies from department to department since each makes its own arrangements for discharging its duties, but certain features are common to most departments: for example, the minister of a major department is likely to have at the head of his officials a permanent secretary (known as the Permanent Under-Secretary of State in those departments where the minister is a Secretary of State), one or more deputy secretaries, and a varying number of under-secretaries and assistant secretaries. In addition, major departments usually have a principal finance officer and a principal establishments and organisation officer. A number of departments have their own organisation and methods ('O and M') branch, the members of which act in an advisory capacity. Many departments also have their own legal advisers or solicitors, and their own information division.

Some departments maintain a regional organisation, and some that have direct contact with the public throughout the country also have local offices.

Many Government departments are assisted by advisory bodies, which are of three main kinds: consultative bodies, in which representatives of the Government meet representatives of groups outside Government; expert bodies which formulate recommendations for action in a particular field; and bodies which have advisory status, but in practice decide matters for themselves. The majority of these councils and committees (of which there are several hundred) are permanent bodies attached to the main departments; they are appointed by the relevant minister and their membership, apart from civil servants, includes industrialists, trade unionists, university and industrial scientists, local government officials and councillors, and experts from many other walks of life.

In addition to these standing advisory bodies there are *ad hoc* committees which the Government frequently sets up to examine and make recommendations on specific matters. For certain important inquiries a procedure sometimes adopted is the appointment (by Royal Warrant) of a Royal Commission, whose members are selected on the grounds of their wide experience and diverse knowledge of the subject under con-

sideration. A Royal Commission examines written and oral evidence from Government departments and other interested organisations and individuals, and on this evidence submits a report. The Government may accept the Commission's recommendations in whole or in part, or it may decide to take no further action or to delay action until a later date. Public inquiries are also undertaken by departmental committees, appointed by the head of the department concerned with the subject of the terms of reference.

The following pages provide an outline of the principal functions of the main Government departments. Since much of their work is interconnected, they are not grouped according to the subjects with which they deal, but are arranged in alphabetical order, except for the Cabinet Office and the Treasury (which, in view of their central position, are placed first) and the Scottish and Northern Ireland departments (which are grouped at the end of the section). Further information on the work undertaken by the various departments is given in later sections of this handbook under the relevant subject headings.

The Cabinet Office

The Cabinet Office, or Secretariat of the Cabinet, was instituted during the first world war and has grown into an instrument of great importance in the co-ordination of policy at the highest level. It exists primarily to assist ministers in the exercise of their collective responsibility through the Cabinet and its committees: its functions include the orderly arrangement of business, the recording of meetings and drafting of reports; and it is responsible for the security of all Cabinet documents. Attached to the Cabinet Office, and an integral part of it, is the *Central Statistical Office*, which is charged with the collection from departments of statistics relating to the national economy, their analysis, and their preparation as an agreed body of statistics to assist the Government in formulating its economic and financial policy.

The Treasury

Nominally the heads of the Treasury are the Lords Commissioners: the First Lord of the Treasury (now always the Prime Minister), the Chancellor of the Exchequer and five Junior Lords. In practice, the Lords Commissioners never meet as a board and their responsibilities are carried by the Chancellor of the Exchequer assisted by the Chief Secretary to the Treasury (a Cabinet Minister) and two junior ministers, the Financial Secretary and the Economic Secretary. There is also a Parliamentary Secretary to the Treasury, who is the Chief Government Whip in the House of Commons.

The Treasury is responsible for the co-ordination of economic policy and the control of public expenditure; it is also responsible for the efficient management of the Civil Service, and is involved in the management of other parts of the public service. Its financial and economic work is divided into three functional groups dealing respectively with: financial and monetary policy; public expenditure and resources; and co-ordination of economic policy. The first of these groups covers overseas finance, home finance, aid to territories overseas, and the inter-departmental co-ordination of external economic policy; the second deals with public income and outlay in general and with the main items of public expenditure; and the third is concerned with the balance of the national economy as a whole and deals with short-term economic trends, long-term reviews of resources, problems of economic growth, and incomes policy.

On the management side, the Treasury is organised in two functional groups. The first group is responsible for developing management services and supervising organisation and methods of work, and includes specialised divisions concerned with recruiting,

training, manning and grading in the Civil Service; the second group comprises divisions concerned with pay and conditions of civil servants, and a division which handles pay questions relating to staffs in other parts of the public service.

Parliamentary Counsel to the Treasury. The Office of the Parliamentary Counsel is responsible for the drafting of all Government Bills, except those Bills or provisions of Bills extending exclusively to Scotland, which are handled by the Lord Advocate's Department. The Office drafts all financial and other parliamentary motions and amendments moved by the Government during the passage of Bills through Parliament; it advises departments on questions of parliamentary procedure; and it attends sittings of both Houses of Parliament, and their committees. In addition, the Office of the Parliamentary Counsel drafts delegated legislation when specially instructed, and advises the Government on legal, parliamentary and constitutional questions falling within its special experience.

The Admiralty

The Board of Admiralty consists of a number of Lords Commissioners whose responsibilities are, briefly, to build, direct, maintain and administer the Royal Navy within the framework of the Government's naval defence policy. The present Board comprises nine members (two ministerial, six naval and one civil servant); the First Lord is the ministerial head of the department and the other members are responsible to him for specific duties. The Board is served by three departmental groups: (1) the divisions of the naval staff, responsible for advising on general and technical policy, strategy, tactics, operational planning, the disposition of the Fleet, methods of naval warfare, and material requirements; (2) the departments responsible for advising on personnel and material policy, for providing the men (and their training), for research and development projects, for providing the ships (including their weapons and equipment) and supplies, for the general organisation and administration of associated naval establishments at home and abroad, and for stating (to the Ministry of Aviation) naval aircraft requirements; and (3) the secretariat branches, which co-ordinate business, provide advice on precedent and on general Government policy, supervise the financial administration of the department, and receive, pay and account for all money administered by the Department.

The Admiralty also administers the Royal Greenwich Observatory (now at Herstmonceux) and the National Institute of Oceanography.

The Ministry of Agriculture, Fisheries and Food

The Ministry of Agriculture, Fisheries and Food is responsible in England and Wales for administering Government policy for agriculture, horticulture and fishing. In the operational control of certain diseases of animals its responsibilities extend to Scotland.

In England and Wales the Ministry also deals with certain questions relating to the supply and manufacture of food, including its composition, labelling and advertising; its preservation and nutritional qualities; slaughterhouses; the quality and cleanliness of milk; and the prevention of damage by pests. Ministerial responsibility for the maintenance of reserve stocks of food extends throughout Great Britain.

The Ministry maintains relations with other Commonwealth and foreign countries interested in the United Kingdom as a market for their food exports, and is responsible for schemes such as the Commonwealth Sugar Agreement. It contributes to the work of international bodies such as the Food and Agriculture Organisation of the United Nations.

Ordnance Survey Department. The Ordnance Survey is administered by the Ministry of Agriculture, Fisheries and Food, although it is itself responsible for its day-to-day affairs. The department is responsible for the survey of Great Britain and the maintenance and publication of maps thereof; for drawing, printing and publishing maps and plans from the survey on scales ranging from 1/1,250 to 1/1,250,000. It also undertakes a considerable amount of agency work in compilation, drawing and printing for other departments, particularly for the War Office, the Geological Survey and the Land Registry.

The Air Ministry

The Air Ministry consists of the Air Council, which has administrative control of the Royal Air Force (RAF) and is headed by the Secretary of State for Air, and the four executive departments by which the council is served. These departments are: (1) the department of the Chief of Air Staff, responsible for policy, planning and the fighting efficiency of the RAF; advice on the conduct of operations and the issue of operational orders; operational requirements, flying training, ground combat, navigational training; defence, including the use of guided weapons; operational and defence research; flight safety; (2) the department of the Air Member for Personnel, responsible for all matters connected with the personnel of the RAF (except establishments) and technical, command and staff training; (3) the department of the Air Member for Supply and Organisation, responsible for internal organisation in the RAF in peace and war; establishment of personnel, aircraft, marine craft, and mechanical transport; transportation; works and technical services; engineering; supply services; work study; and (4) the department of the Permanent Under-Secretary of State for Air, responsible for general control and co-ordination of Air Ministry procedure and the conduct of official business; control of expenditure; establishment of Air Ministry headquarters and outstations and all civilian staff matters; parliamentary and legal business; and the general administration of the Meteorological Office.

The supply of airframes, aero engines, and certain other weapons and equipment is arranged through the Ministry of Aviation and the War Office.

The Meteorological Office, for which the Secretary of State for Air is responsible, provides the national weather service and meteorological library. It supplies the material for sound and television forecasts and much of the weather data published by the press. Local weather information centres have been opened in London, Glasgow, Manchester and Southampton, from which inquirers may get facts and forecasts, usually free of charge, covering most of the northern hemisphere. The Office is also responsible for meteorological, climatological, and geophysical research.

The Ministry of Aviation

The Ministry of Aviation is responsible for the execution of Government policy relating to civil aviation and aircraft production. It also has a number of defence and industrial responsibilities.

The Ministry's civil aviation responsibilities include the regulation of flying, the promotion of air safety and efficiency, the provision, administration and equipment of State-controlled civil aerodromes and other ground services, the organisation of research on, and development of, civil aircraft, the negotiation of international air transport agreements, the registration of aircraft, the licensing of aerodromes and aircrew and aircraft maintenance personnel, and research on air navigation. The Minister of Aviation appoints the members of the nationalised airline corporations and deals with

various policy and financial questions covering them. He also appoints the members of the Air Transport Licensing Board.

The Ministry's defence responsibilities include the supply of military aircraft, guided and ballistic missiles, nuclear weapons, radar and other electronic equipment for the fighting services; it is responsible for their design and development, and carries out the necessary research.

The Ministry is also the department primarily responsible for carrying out Government policy in regard to the aircraft industry, the light metals fabricating industry and the electronics industry (excluding telephones and telegraph equipment and electric lamps).

The Central African Office

The Central African Office, which is concerned with the Federation of Rhodesia and Nyasaland and with the affairs of its constituent territories, was set up in March 1962. The Office has taken over the responsibilities of the Commonwealth Relations Office for the Federation of Rhodesia and Nyasaland and for the self-governing colony of Southern Rhodesia, and those of the Colonial Office for the protectorates of Northern Rhodesia and Nyasaland; many of the services of those Departments are, however, available to the Central African Office. Responsibility for Central African affairs is vested in the First Secretary of State (see p. 44).

The Colonial Office

The Colonial Office is concerned with most of the dependent territories of the United Kingdom. It does not directly administer them (since each territory has its own administration), but until independence the British Government has final responsibility for their good government and for their relations with other countries. The staff of the Colonial Office advise the Secretary of State for Commonwealth Relations and the Colonies on constitutional and other developments in the territories, and organise the help they need. This includes advice on economic and financial matters and defence; the provision of financial assistance under the Colonial Development and Welfare Acts and in other ways; the administration of certain senior staff for the public services of the dependent territories; and the fostering of understanding between the people of Britain and the people of the Colonies. In this work the Colonial Office co-operates closely with other departments, particularly with the Commonwealth Relations Office, the Foreign Office, and the Department of Technical Co-operation.

The Commonwealth Relations Office

The Commonwealth Relations Office links the United Kingdom Government with the Governments of the other member nations of the Commonwealth.

The duties of the Office are: to advise the Secretary of State for Commonwealth Relations and the Colonies on policy affecting the other members of the Commonwealth; to co-ordinate the work of the various United Kingdom departments in so far as other Commonwealth countries are concerned; to arrange consultation with other members of the Commonwealth on all matters of common concern; and to act as the main channel of communication through which information is exchanged.

The Secretary of State also maintains relations with the Irish Republic which, although no longer a member of the Commonwealth, is not treated as a foreign country.

The Board of Customs and Excise

The primary work of the Board of Customs and Excise is to collect and administer the customs and excise duties imposed from time to time in the annual Finance Acts

or by other legislation, and to advise the Chancellor of the Exchequer on any matters connected with them. The Board is also responsible for preventing and detecting evasion of the revenue laws, including smuggling and illicit distillation.

In addition to its revenue work, the Board undertakes a wide range of non-revenue agency work for other departments, e.g., the enforcement of prohibitions and restrictions on the importation and exportation of certain classes of goods, exchange currency control, and the compilation of United Kingdom overseas trade statistics from customs import and export documents.

The Ministry of Defence

The Ministry of Defence is responsible for the formulation of defence policy and the allocation of defence expenditure; it is also responsible for the execution of joint Service operations. It co-ordinates, through the Chiefs of Staff and the Defence Research Policy and other committees, the development of weapons and weapon systems. The administration and day-to-day management of the armed forces is carried out by the Service ministries.

The Ministry of Defence is also responsible for the administration of the Joint Intelligence Bureau, the Imperial Defence College and the Joint Services Staff College and is concerned with the United Kingdom participation in international defence organisations.

The Ministry of Education

The Ministry of Education is generally responsible for the promotion of the education of the people of England and Wales and for the progressive development of institutions devoted to that purpose. In the discharge of its duties the Ministry is concerned with the development of primary, secondary and further education, including vocational education and education for leisure and the social and physical training of young people; it deals with the supply, training and superannuation of teachers, the building of new schools and other institutions, the school health service, the special educational treatment of handicapped children, and the provision of school meals and milk. In these spheres of activity, the Ministry works in co-operation with the local education authorities—the councils of the counties and of the county boroughs—whose duty it is to secure adequate facilities for all forms of education in their areas. On professional matters, contact with the local education authorities is maintained through Her Majesty's Inspectorate of Schools, which is organised in regional divisions throughout England and Wales for its work of inspection, liaison and advice. A separate Welsh Department of the Ministry of Education deals with education in Wales.

As the department concerned with education generally, the Ministry is responsible for policy regarding awards for university students; for the administration of the Victoria and Albert Museum and the Science Museum, London; and for the maintenance of educational relations with other countries of the Commonwealth, with foreign countries, and with the United Nations Educational, Scientific and Cultural Organisation. It also administers the United Kingdom grant to the Commonwealth Institute,¹ some of the governors being appointed by the Minister of Education.

¹ The Commonwealth Institute houses permanent exhibitions of the peoples and products of the Commonwealth, shows films on Commonwealth subjects, and does much educational work in co-operation with schools. It also arranges lectures and conferences and provides study and recreational facilities for Commonwealth students.

The Foreign Office

The Foreign Office is the headquarters of the Foreign Service. The minister responsible to Parliament for the conduct of foreign affairs and for the direction and operation of the Foreign Service is the Secretary of State for Foreign Affairs.

The Foreign Office acts as a channel of communication between the United Kingdom Government and the Governments of foreign States, either through the representatives of foreign States in the United Kingdom or through Her Majesty's representatives abroad, for the discussion and negotiation of all matters falling within the field of international relations, including the drawing up of international treaties and agreements. It also provides the means by which the United Kingdom Government is represented in the United Nations and on other international bodies and is kept informed of developments in foreign countries; by which British subjects and interests abroad are protected and trade promoted; and by which British policy is explained to foreign Governments and peoples. The work of the Foreign Office ranges widely, from these political issues of national importance to primarily administrative matters, such as questions of nationality, the issue and renewal of passports, and the immunities and privileges of foreign diplomatic representatives.

The Forestry Commission

The Forestry Commission, which is the national forest authority, with its own annual Vote in the Estimates, is responsible under the Forestry Acts, 1919-51, for promoting the interests of forestry, the development of afforestation and the production and supply of timber in Great Britain, and for licensing the felling of growing trees.

The Minister of Agriculture, Fisheries and Food is responsible for forest policy in England and Wales, and the Secretary of State for Scotland in Scotland.

The General Register Office

The General Register Office is responsible under the Registrar General for the regulation of civil marriages and for the administration of civil registration in England and Wales, for the preparation of statistics and reports relating to population, fertility, births, marriages, adoptions, diseases, and deaths and for making arrangements for the periodic census of the population. Responsibility to Parliament rests with the Minister of Health.

The Ministry of Health

The Ministry of Health is responsible for the administration, in England and Wales, of the National Health Service under the National Health Service Acts; it supervises the work of local authorities under certain sections of the Public Health Acts and the care of the aged, infirm, blind, deaf and other handicapped persons under the National Assistance Act, 1948; and it has functions relating to food hygiene and welfare foods.

The Ministry of Health is also concerned with the medical and surgical treatment of war pensioners in England and Wales, the Channel Islands and the Isle of Man, or living in the Irish Republic.

The exercise of the Ministry's functions in Wales has been delegated to the Welsh Board of Health, the members of which are appointed by the Minister of Health.

The Ministry of Health is represented on the World Health Organisation of the United Nations.

The Home Office

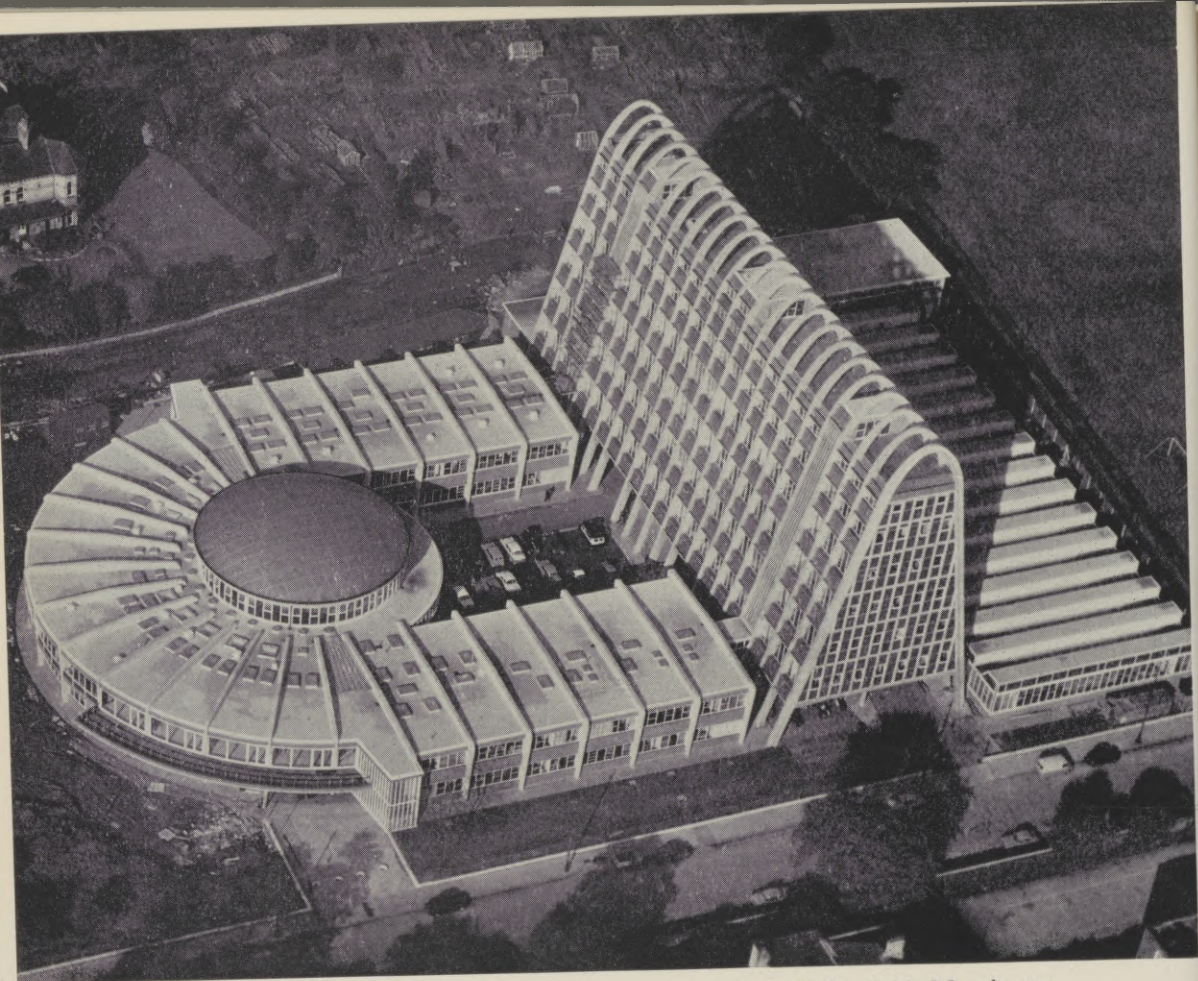
The head of the Home Office is the Secretary of State for the Home Department (the Home Secretary), who is entrusted with all the responsibilities of national



HMS *Bulwark*, one of the Royal Navy's Commando carriers.



Britain's latest tank, the *Chieftain*.



EDUCATIONAL BUILDINGS: The Domestic and Trades College, Fallowfield, Manchester.



A primary school built under the CLASP prefabrication system developed by Nottinghamshire County Council.

administration which have not been especially assigned by law or convention to another minister. The Home Secretary is the channel of communication between the Sovereign and his or her subjects, and between the United Kingdom Government and the Governments of Northern Ireland, the Channel Islands and the Isle of Man.

The chief matters with which the Home Office is concerned are: the maintenance of law and order; the efficiency of the police service; the treatment of offenders, including juvenile offenders; the efficacy of the probation service; the organisation of magistrates' courts; the introduction of legislation on criminal justice; the efficiency of the fire service; the care of children by local authorities and voluntary organisations; the regulation of the employment of children and young persons; the law relating to the conduct of parliamentary and local government elections; public safety and preparations for civil defence; immigration control and naturalisation of aliens; and general questions and individual cases relating to British nationality and citizenship of the United Kingdom and Colonies.

Other matters for which the Home Office is responsible include: receiving and submitting addresses and petitions to the Sovereign and preparing presentations to Parliament; preparing patents of nobility for peers and formal proceedings for the bestowal of honours; advising the Crown on the exercise of the prerogative of mercy; making and receiving requests for the extradition of criminals; sanctioning by-laws made by local authorities in so far as they relate to 'law and order' and 'good governance'; granting licences to experiment with animals; ordering the exhumation and removal of bodies; supervising the control of explosives, firearms and dangerous drugs; and administering the State Management Scheme for control of the liquor trade in the Carlisle district.

The Ministry of Housing and Local Government

The Ministry of Housing and Local Government is generally responsible for local government in England and Wales, and exercises powers in regard to housing, town and country planning, water, sewerage, and other services administered by local authorities. It is responsible for sanctioning loans for most purposes for which local authorities require to borrow money and for acting as the main link between local authorities and the central Government.

As the central housing authority, the Minister supervises the administration of the housing statutes and the national housing programme; and his officers keep in close touch with the local housing authorities in England and Wales. Local authority proposals for dealing with slum clearance are also submitted to him.

The town and country planning work of the Ministry includes the framing and execution of the national policy on the use and development of land for the purpose of achieving the best use of land in the public interest. The functions of the Minister include confirmation of the acquisition and disposal of land by local authorities; and the payment of grants, for planning purposes, in certain cases of acquisition, clearing and compensation. The Minister also has responsibilities in connection with the designation of new towns and national parks, the development corporations of the new towns, with the National Parks Commission and the Commission for New Towns.

The Minister of Housing and Local Government is also the Minister for Welsh Affairs.

The Central Office of Information

The Central Office of Information is a common service department which produces information and publicity material, and supplies publicity services, required by all

other Government departments. In the United Kingdom it conducts Government display press and poster advertising (except for the National Savings Committee), produces and distributes booklets, leaflets, films, television material, exhibitions, photographs and other visual material; carries out social surveys, and distributes departmental press notices. For the overseas departments it supplies British information posts overseas with press, radio and television material, booklets, magazines, reference services, films, exhibitions, photographs, display and reading-room material; manages schemes for promoting the overseas sale of British books, periodicals and newspapers; arranges tours in the United Kingdom for official visitors from overseas; and provides exhibition stands at trade fairs (for the Board of Trade). Administratively, the Central Office of Information is responsible to Treasury ministers, while the ministers whose departments it serves are responsible for the policy expressed in its work.

The Board of Inland Revenue

The Board of Inland Revenue administers the laws relating to income tax and surtax, profits tax, stamp duty, estate duty, and certain other direct taxes of lesser importance; and advises the Chancellor of the Exchequer on any matters connected with them. It also is responsible for the valuation of real property for such purposes as compensation for compulsory purchase, local rates in England and Wales, and estate duty; and for the collection of tithe redemption annuities.

The Ministry of Labour

The Ministry of Labour co-operates with other Government departments on matters of general employment policy, including the distribution of industry, and the maintenance of a high and stable level of employment.

One of the Ministry's principal functions is to help employees to find the work best suited to them and to assist employers to obtain suitable employees; to this end, it operates a national system of employment exchanges, which includes a Professional and Scientific Register at 38 of the larger exchanges, and government schemes for vocational training. It is also concerned with the central administration of the Youth Employment Service, which is provided locally by the Ministry of Labour or the local authority, and it provides the Disablement Resettlement Service which helps disabled persons to secure employment.

Other functions of the department include: the resettlement in civilian employment of men released from the armed forces; the supervision, through the Factory Inspectorate, of safety, health and welfare measures for industrial workers; the collection and publication of labour statistics of all kinds; the promotion of good industrial relations; and the provision of services for conciliation, arbitration and investigation in industrial disputes.

Responsibility for the relations of the United Kingdom Government with the International Labour Organisation rests with the Ministry, which also deals with overseas questions about labour and employment and with the employment of foreign workers in Great Britain.

Besides these principal functions, the Ministry undertakes agency work for other Government departments in connection with National Insurance, National Assistance, repayment of income tax to unemployed persons, and the issue of passports.

The Law Officers' Department

The Law Officers of the Crown for England and Wales (the Attorney General and the Solicitor General) are responsible for the legal advice given to the Government;

in addition, they have a wide range of duties in relation to the courts. The Attorney General, who is the senior Law Officer, is the Crown's representative in the courts, and legal proceedings for the enforcement of public rights and on behalf of the interests of charity are conducted in his name. His consent is required to the institution of criminal proceedings for certain offences, and the Director of Public Prosecutions is subject to his superintendence. The Queen's Proctor, who has certain duties connected with the operation of the divorce laws, also exercises his functions under the directions of the Attorney General. The Solicitor General is subject to the authority of the Attorney General but has otherwise the same rights and duties. The Law Officers, who are appointed from among the leading members of the English Bar and are always members of the House of Commons, are assisted by a small professional staff.

The Lord Chancellor's Departments

The Chancellorship is a legislative, judicial and executive office held by an eminent ex-member of the Bench or of the Bar and carrying Cabinet rank.

In addition to his functions as Speaker of the House of Lords and Custodian of the Great Seal, the Lord Chancellor is in charge of more than 20 different offices and branches which are mainly concerned with legal practice and procedure. He controls the machinery of the courts of law through his patronage, through administrative powers conferred by the Judicature Act, 1925, and other Acts, through his membership of the Rules Committee of the Supreme Court and his responsibility for that of the county courts; he appoints the justices of the peace and recommends to the Crown other appointments to the judiciary in England and Wales; and he is the minister responsible for the Judge Advocate General's Department, which advises the War Office and the Air Ministry on all legal matters arising out of the administration of military law, and which may review the proceedings of army and air force courts martial.¹

In addition, the Lord Chancellor is a leading member of the Judicial Committee of the Privy Council; he appoints the chairmen of certain administrative tribunals in England and Wales, and (with the Secretary of State for Scotland) the members of the Council on Tribunals, and is responsible for the administration of the Land Registry (which maintains a State register of title to land), the Public Trustee Office (which may act as the executor or administrator of the estate of a deceased person or as a trustee under a will or settlement) and the Public Record Office (which preserves, and provides access to, the national archives).

The National Assistance Board

The National Assistance Board is responsible to Parliament through the Minister of Pensions and National Insurance. It administers the State service of financial assistance to persons in need and unable to maintain themselves, the non-contributory pension scheme under the Old Age Pensions Act, 1936, and is responsible for assessing the means of persons applying for legal aid.

The Paymaster General's Office

The Paymaster General's Office acts generally as a banker for most Government departments other than the Boards of Inland Revenue and Customs and Excise, and the Post Office, for all of which separate arrangements exist. Money granted by Parliament is transferred (in such sums as may be required from day to day) from the

¹ The Judge Advocate of the Fleet is responsible for these matters in the Royal Navy.

Exchequer account to the account of the Paymaster General at the Bank of England. Most departmental payments are made by means of payable orders drawn on the Paymaster General's Office; these are similar to cheques, and their recipients obtain payments through the commercial banks, whose accounts at the Bank of England are in turn reimbursed by the Paymaster General's Office.

The department is also responsible for the regular payment of many public service pensions, including those of civil servants, teachers, and members of the National Health Service, as well as the retired pay and pensions of officers of the armed forces, their widows and dependants.

The Ministry of Pensions and National Insurance

The Ministry of Pensions and National Insurance is responsible (1) for the social security services established since the second world war by the Family Allowances Acts, the National Insurance Acts and the National Insurance (Industrial Injuries) Acts, and for reciprocal social security arrangements with other countries, and (2) for the award and payment of pensions and allowances for disablement or death due to service in the armed forces of the Crown in the first world war, the second world war, and since (including service in the Home Guard), or due to war injuries sustained by naval auxiliaries, merchant seamen, civil defence personnel and civilians in the second world war, and for the welfare of pensioners and their dependants and war orphans. In addition to its responsibilities for war pensioners in the United Kingdom and in the Irish Republic, the Ministry is responsible for the administration of war pensions and for the medical treatment of war disablement of United Kingdom pensioners living in Northern Ireland and, through its various agencies, in other countries overseas. The Ministry maintains an office in Ottawa to serve pensioners in North America.

The Post Office

The Post Office, which is controlled by the Postmaster General, operates the inland postal, telegraph, telephone and remittance services and, in co-operation with other countries and interests, the corresponding overseas services.

Through its 24,000 post offices it also undertakes numerous agency functions, including the operation of the Post Office Savings Bank, the issue of savings certificates and bonds, the sale of broadcast receiving and other licences, the sale of stamps for National Insurance contributions, and the payment of grants and allowances, such as National Insurance payments, retirement pensions and family allowances. A considerable volume of scientific research and technical development relating to telephone, telegraph and radio systems and the mechanisation of the postal services is carried out by the engineering staff of the Post Office.

All Post Office income is paid into, and all its outgoings are met from, a self-contained fund, under the control of the Postmaster General.

The Postmaster General is also responsible to Parliament for broad questions of national policy concerning the sound and television broadcasting services.

The Ministry of Power

The Ministry of Power has the general duty of ensuring the effective and co-ordinated development of fuel and power supplies in Great Britain, and of promoting economy and efficiency in their distribution and consumption. The business of producing and distributing gas and electricity and of producing coal is operated by the boards of the three nationalised industries whose members are responsible to the Minister on policy issues. The Ministry is also responsible for Government relations with the petroleum

industry; it has certain functions in relation to the iron and steel industries; and it is specifically responsible for the use of atomic energy as a source of industrial power and for the safety of nuclear installations other than those operated by the United Kingdom Atomic Energy Authority.

The Ministry is concerned with the general co-ordination of fuel research; it administers the legislation governing the safety and health of workers in or about coal mines, metalliferous mines and quarries, and it conducts or arranges for research on these matters and on other specific projects.

The Department of the Procurator General and Treasury Solicitor

The Treasury Solicitor provides a common legal service for a large number of Government departments in England and Wales; the duties of his Department include drafting and preparing litigation and prosecutions, representing other departments in court, and giving general advice on the interpretation and application of the law. The Department undertakes a considerable amount of conveyancing connected with the transfer of real property and with the administration of the residuary estates (undisposed of by will) of certain deceased persons, and it deals with the outstanding property and rights of dissolved companies. The Statutory Publications Office is staffed and controlled by the Treasury Solicitor, who reports annually to the Statute Law Committee (a body appointed by the Lord Chancellor from among the judiciary and legal profession in England and Scotland) on its work.

Some Government departments are wholly dependent on the Treasury Solicitor for their legal work; others have their own legal staffs for a proportion of the work and draw on the Treasury Solicitor for special advice, and often, for conveyancing; and others, whose administrative work is based on or deals with a code of specialised law or involves a great deal of legal work, have their own independent legal sections.

The Treasury Solicitor is also Procurator General (Queen's Proctor).

The Ministry of Public Building and Works

The Ministry of Public Building and Works is the point of contact within the Government for the construction industries and the building materials industries; it pays particular attention to the public building activities of the building industry (in connection with which it works in close conjunction with the Ministry of Housing and Local Government); and it has responsibility for co-ordinating information about current and future building programmes. Regular consultation with the industries at national and regional levels and a comprehensive statistical service are maintained and encouragement is also given to the industries to make full use of the results of research and development.

Other functions of the Ministry are: the provision of office accommodation for Government departments (including public buildings overseas), and of research establishments and many other types of accommodation required by civil and Service departments; the design, purchase, supply and maintenance of furniture and equipment for Government departments and certain other bodies, and their supplies of fuel, household articles and stores; the administration of the Ancient Monuments Acts and the maintenance of those ancient monuments and historic buildings which are in its charge; the making of grants, on the advice of the Historic Buildings Councils, towards the maintenance of historic buildings of outstanding interest; the maintenance of royal palaces and certain official residences; the provision of building, engineering and supplies services for certain State ceremonial occasions; the management and maintenance of the royal parks and certain other open spaces.

The Department of Scientific and Industrial Research

The Department of Scientific and Industrial Research is under the charge of a Council for Scientific and Industrial Research, the members of which are appointed by the Minister for Science, after consultation with the President of the Royal Society.

The Council is entrusted with developing and encouraging scientific and industrial research and disseminating the results of such research. In particular, it may (a) encourage and support scientific research in universities, technical colleges and other institutions, (b) establish and develop institutions for investigations and research relating to trade and industry, and (c) take steps to further the practical application of the results of scientific and industrial research. It is empowered to make grants for these purposes and for postgraduate instruction in science and technology.

The Council administers fifteen research establishments, and it aids with grants some 50 autonomous industrial research associations that are financed mainly by industrial memberships. The work of the Department is concerned with all the natural sciences except medicine and atomic energy, and all industries except agriculture, fisheries and forestry. It accounts for its own Vote in the Estimates.

The Stationery Office

Her Majesty's Stationery Office, responsible to the Chancellor of the Exchequer, is the central agency for providing Government departments with printing, binding, duplicating, addressing and distributing services, office machinery, equipment and supplies, published books and periodicals, and desk stationery. It also provides certain of these services for the armed forces of the Crown, at home and overseas.

The Controller is Queen's Printer of Acts of Parliament and in him is vested the copyright of all British Government documents. About a third of all official printing, including all parliamentary needs, is done in the Stationery Office's nine printing and binding works, the remainder being carried out by private printers under contract. As Government publisher, the Stationery Office is responsible for sales of official publications, through its own bookshops as well as the normal bookselling channels, at home and abroad. It is also the United Kingdom agent for United Nations (including UNESCO and other specialised agency) publications.

The Department of Technical Co-operation

The Department of Technical Co-operation, under a minister known as the Secretary for Technical Co-operation, is responsible for co-ordinating, promoting and carrying out arrangements for providing countries outside the United Kingdom with technical assistance in the fields of economic development, administration and social services. The Department is thus responsible for the administration of funds provided by the United Kingdom Government under the Colombo Plan, the Special Commonwealth Assistance Plan for Africa (SCAAP) and other programmes of technical assistance. Its activities include the recruitment of staff in response to requests from overseas Governments and international organisations and meeting requests by overseas Governments for assistance in the training of their nationals in the United Kingdom. It administers the Overseas Service Aid Scheme, under which Britain reimburses to certain Commonwealth independent and dependent Governments part of the cost of employing experienced staff to help with government until they can be replaced by local people.

The Department has a responsibility for the Directorates of Overseas (Geodetic and Topographical) Surveys and Overseas Geological Surveys, and the Anti-Locust

Research Centre; it also co-operates with other organisations in the United Kingdom concerned with technical assistance.

The Board of Trade

The Board of Trade, under the President of the Board of Trade, has a general responsibility in respect of the United Kingdom's commerce, industry and overseas trade, including commercial relations with other countries, import and export trade, the protective tariff, industrial development and consumer protection. It is also responsible for (1) the promotion of exports, (2) statistics of trade and industry (both at home and abroad), including the censuses of production and distribution, and (3) the administration of certain regulative legislation, for example in relation to patents, registered designs, copyright, trade marks, weights and measures, merchandise marks, companies, bankruptcy, insurance, distribution of industry, films, and enemy property.

In addition, the Board of Trade is the department generally responsible for Government relations with all industries which are not specifically the concern of other departments. In this connection, it provides both a channel of communication with and a point of contact for these industries, and a central place at which knowledge about them is accumulated, analysed, and used as a basis for advising ministers and other departments. The main industries which fall outside the scope of the Board of Trade's specific concern are food, agriculture and fisheries, building and quarrying, iron and steel, shipbuilding, fuel and power, and transport.

The Ministry of Transport

The Ministry of Transport has powers and duties relating to inland transport, shipping and shipbuilding.

As the department responsible for inland transport, the Ministry has certain statutory duties relating to railways, roads, road transport and inland waterways. The Minister of Transport appoints the members of the British Transport Commission¹ and agrees the general lines on which its development programme is drawn up. He is the highway authority for trunk roads and motorways in England and Wales. He allocates the funds provided by Parliament for road expenditure in England and Wales, including grants for classified roads vested in local authorities, and has many powers and duties relating to road traffic and safety.

On the shipping side, the Ministry is generally responsible for Government policy towards the shipping industry and for promoting its prosperity in the international field. The Ministry administers the provisions of the Merchant Shipping Acts in regard to ships, their masters, officers and men; safety of life at sea; navigation (including pilotage, lighthouses and other aids to safety in navigation); and wreck and salvage. It is also responsible for the provision and operation of troopships and for the Coast-guard Service, and is concerned with harbours, docks, piers and river conservancy.

The Ministry is further responsible for the ship and boat-building, ship repairing and marine engineering industries. It advises the Government on the state and prospects of those industries and seeks to help them within the framework of Government policy.

The War Office

The Secretary of State for War presides over the Army Council, which is composed of military and civilian members and is responsible for the administrative control of

¹ For successor organisations under the Transport Act, 1962, see Chapter 12, Transport and Communications.

the Army. The functions of the War Office include the planning of operations and training; the collection and sifting of military information; the research, development and production of all arms and equipment for the Army (except aircraft, guided and nuclear weapons and electronic equipment for which the Ministry of Aviation is responsible); the determination of financial and labour policy connected with the Army, including appointments, promotions, postings and payment; and the supervision of War Office civilian staffs both at home and abroad.

The War Office is also responsible for most of the Royal Ordnance factories (which produce certain stores and equipment for all three Services and other users, such as Government departments and some overseas countries) and for the greater part of the disposal of surplus Service equipment.

SCOTLAND

The Secretary of State is responsible in Scotland for a wide range of functions which in England and Wales are divided among a number of departmental ministers. He is assisted at ministerial level by a Minister of State and three Parliamentary Under-Secretaries of State. There are also two Scottish Law Officers.

The Secretary of State's functions are discharged by four main departments of equal status (the Department of Agriculture and Fisheries for Scotland, the Scottish Development Department, the Scottish Education Department, and the Scottish Home and Health Department), each under a Secretary responsible to the Secretary of State.

The day-to-day administration of the departments is conducted in Edinburgh, but each department has representatives in London for liaison and parliamentary duties. The London office is generally known as the Scottish Office, the term also used to describe all Scottish administration for which the Secretary of State is responsible.

The Scottish Ministers are advised and assisted (particularly in relation to questions with which more than one of the departments are concerned or which fall outside the province of any of them) by the Permanent Under-Secretary of State, Scottish Office, who is free from departmental duties.

The Department of Agriculture and Fisheries for Scotland

The Department has a general responsibility for, and in most cases administers, Government measures for the promotion and development of farming in Scotland. Its functions include: the administration of guaranteed prices for the major farm products, fixed by the Government after consultation with the industry; the provision of grants and subsidies and other services to agriculture; the use and improvement of land and the improvement of farm stock and crops; the application of measures for controlling plant diseases and pests and for treating infestations in stored food; the management of the agricultural properties owned by the Secretary of State; the administration of grants towards the work of the eight research institutes in Scotland and the educational and advisory services provided by the three agricultural colleges; matters affecting animal health; the promotion of measures for safety, health and welfare of agricultural workers; the regulation of agricultural wages; and the stimulation of rural industries. In certain of these functions the Department is assisted by eleven agricultural executive committees, constituted of members of the agricultural industry and organised on an area basis.

The Department is responsible for the oversight and protection of the Scottish inshore, deep sea and fresh-water fisheries. It also has functions relating to harbours,

to steamer services in the Highlands and Islands and to general questions concerning Highland development.

The Scottish Development Department

The Scottish Development Department is concerned with a number of the main services affecting the physical development of Scotland, such as town and country planning (including new towns), housing, roads, water supplies and sewerage, and the prevention of river and air pollution (most of which are administered locally by town and county councils); and it administers the Secretary of State's functions in regard to the Electric Boards in Scotland. The Department is responsible for general policy in regard to local government, including valuation and rating, and for the allocation of the Exchequer general and equalisation grants. Its work also includes advising the Secretary of State on Scottish economic development generally.

The Scottish Education Department

The Scottish Education Department is responsible for supervising the administration of the Education (Scotland) Acts and for guiding the development of public education in Scotland in all its forms. The Department's functions include: the supervision of the training of teachers and the issue of teachers' certificates; the regulation of teachers' salaries and the administration of the Teachers (Superannuation) (Scotland) Regulations; the control and distribution of specific Exchequer grants in aid of educational expenditure; the award of students' allowances to those taking full-time courses at universities and colleges of education; and the conducting of the annual examination for the Scottish Certificate of Education. The Department also exercises general supervision over the child care and adoption services, remand homes, and approved schools; and it is concerned with the administration of the Royal Scottish Museum.

The Scottish Home and Health Department

The Scottish Home and Health Department is responsible for: (a) the central administration of functions relating to law and order; and (b) the health and welfare services in Scotland. Under (a) the Department is concerned with the police and probation services, criminal justice, legal aid and the services needed by the courts, and is directly responsible for the administration of prisons and borstal institutions. It is also the central authority in Scotland for the fire service, for civil defence, and for legislation concerning shops, theatres, cinemas and licensed premises (which are directly maintained by the Department in districts in which State management is in operation). Under (b) the Department is responsible for the administration of the National Health Service, comprising the hospital service, the general medical, dental and ophthalmic services and the local authority health services. Its work in connection with the associated welfare services includes the supervision of local arrangements for the aged and handicapped, and medical and surgical treatment for war pensioners.

Other Administrative Departments

In addition to the main departments, there are a number of other Scottish departments, all of which work in varying degrees under the direction of the Secretary of State. Such departments include the Scottish Information Office, which undertakes information services on behalf of the Secretary of State for Scotland, the Scottish departments and, in some degree, for Great Britain departments in Scotland, and acts as the agent in Scotland of the Central Office of Information; the Department of the

Registrar-General for Scotland (the General Registry Office); the Scottish Record Office; and the Department of the Registers of Scotland. There are also Scottish branches of the Great Britain and United Kingdom departments under the direction of controllers, who are responsible for ensuring that the execution in Scotland of the policy and procedure of their departments is in accordance with Scottish conditions and needs.

The Law Officers and Legal Departments

The Law Officers of the Crown for Scotland (the Lord Advocate and the Solicitor General for Scotland) are the chief legal advisers to the Government on Scottish questions and the principal representatives of the Crown for the purposes of litigation in Scotland. The Lord Advocate, being the senior Scottish lawyer in the Government, is also closely concerned with questions of legal policy and administration; he is himself responsible for the institution and direction of all prosecutions on indictment in Scotland, and the control of summary prosecutions in the sheriff court.

In some of this work the Lord Advocate is assisted by the *Lord Advocate's Department*, the members of which also act as departmental advisers on Scottish questions to certain Government departments who have no Scottish legal adviser of their own. The work relevant to prosecutions is centred in the *Crown Office* in Edinburgh.

The Lord Advocate is always a member of the House of Commons.

The Parliamentary Draftsmen for Scotland are incorporated in the Lord Advocate's Department and are responsible to the minister concerned and to the Law Officers for the drafting of all Government Bills in so far as they affect the law of Scotland. Their responsibilities in this connection are similar to those of the Parliamentary Counsel to the Treasury.

NORTHERN IRELAND

Executive and administrative powers in connection with matters over which the Northern Ireland Parliament has jurisdiction are vested in the Crown, and exercised by the Governor, acting on the advice of the Northern Ireland Cabinet, through a number of departments. Each of the seven ministries (Agriculture, Commerce, Education, Finance, Health and Local Government, Home Affairs, and Labour and National Insurance) is under the control of a minister responsible to the Northern Ireland Parliament. In addition, there are a National Assistance Board and an Exchequer and Audit Department which, together with the Ministries of Home Affairs, Education, and Agriculture have functions indicated by their titles. The other departments have duties of a varied nature, which are summarised below.

The Ministry of Commerce

The Ministry of Commerce is concerned with industrial information and statistical services; the progress of industrial production and trade in Northern Ireland; the development of existing enterprises and the attraction of new ones; and the administration of schemes of financial assistance to industry. The department also has responsibilities in relation to electricity and gas undertakings; roads and bridges and inland public transport; the Northern Ireland Road Fund; railways; harbours and inland waterways; fisheries; the tourist trade; the regulation and inspection of mines and quarries; mineral development; scientific development; weights and measures; the registration of companies and friendly societies; and the administration of the Assurance Companies Acts and the Industrial Assurance Acts.

The Ministry of Finance

In addition to acting as Treasury to the Government of Northern Ireland, the Ministry of Finance is responsible for matters connected with recruitment and staffing of the Northern Ireland Civil Service; Government works services, including agency services for certain departments of the United Kingdom Government; the preservation of ancient monuments; valuation and ordnance survey; the Public Record Office; the Registrar General's Office; the Land Registry and the Registry of Deeds.

Other functions of the Ministry include the issue of Ulster savings certificates; the collection of death duty, stamp duty and certain transferred excise duties; work in connection with land purchase; statute law revision; the control of charitable donations and bequests; the control of borrowing; and the payment of university grants. The Office of the Parliamentary Draftsmen, which prepares Bills for introduction into Parliament, is attached to the Ministry.

The Ministry of Health and Local Government

The Ministry of Health and Local Government is responsible for the general supervision of the Health Service in Northern Ireland, which is broadly similar to the National Health Service in Great Britain: the administration of the various aspects of the service is in the hands of the Hospitals Authority, the General Health Services Board, and the local health authorities. The Ministry also exercises functions under the Housing Acts (Northern Ireland), supervising the house-building programmes of, and distributing grants to, local housing authorities and the Northern Ireland Housing Trust. It also supervises various other functions of local authorities, including planning, public health, welfare, water, and sewerage services (many of which attract specific grants-in-aid) and it controls the issue of central financial aid to local authorities.

The Ministry of Labour and National Insurance

The Ministry of Labour and National Insurance is responsible for the administration of the Factories Acts and other legislation connected with industrial health and welfare; for the promotion in industry of joint machinery for negotiation and for assistance in the prevention and settlement of industrial disputes; for the administration of the Wages Councils Act; for the administration of local employment offices and training centres and the machinery for dealing with employment questions of all kinds under the Employment and Training Act, the Youth Employment Service Act, and the Disabled Persons (Employment) Act; for the administration of the National Insurance Acts and the National Insurance (Industrial Injuries) Acts, and of the Family Allowances Acts; and for carrying out certain statutory functions in connection with the National Assistance scheme in conjunction with the National Assistance Board for Northern Ireland.

THE CIVIL SERVICE

A civil servant in Britain is a servant of the Crown (not being the holder of a political or judicial office), who is employed in a civil capacity and whose remuneration is found wholly and directly out of money voted by Parliament. The number of civil servants under this definition amounts to nearly a million, for it includes several hundred thousand Government industrial employees in such establishments as Royal Ordnance factories and Admiralty dockyards. The term 'Civil Service' is, however, generally used only to cover 'non-industrial' members of the staffs of the various Government departments in the United Kingdom or working overseas either in the

Foreign Service or for other Government departments such as the Commonwealth Relations Office. On 1st April, 1962, the total number of non-industrial civil servants employed in all departments, at home and overseas, was 669,800¹; more than one-third (225,700) are women.

Although the civil servant is legally a servant of the Crown, in practice he serves the minister in charge of the department in which he works, by advising on the formulation of policy and by carrying out policy decisions once they have been taken. From time to time the minister changes but the civil servant remains to serve his successor. In Britain changes of government do not involve changes in departmental personnel, since it is considered that continuity makes for administrative stability.

Development of the Modern Civil Service

The Civil Service in its present form is a product of the past hundred years. Before then, departments were free to choose their own staffs, qualifying standards were unknown, there was no central supervision, and political jobbery was rife. Measures of reform instigated during the nineteenth century included the substitution of open competition for the practice of obtaining civil service appointments by favour or purchase, and the establishment of an independent body, the Civil Service Commission, to organise recruitment to the service. The great expansion in State activity which has taken place during the last fifty years, and the consequent expansion in the numbers of civil servants and the scope of their duties, have led to further reorganisation: recruitment competitions have been adapted to a developing educational system; co-ordination between the various departments has been improved; and many commissions and committees of inquiry have been appointed by the Government to make recommendations for increased efficiency in the conduct of public business. Moreover, civil servants, though they remain employees of their departments, have become members of an integrated service with common conditions of employment and common traditions and standards of conduct which belong, not to individual departments, but to the Civil Service as a whole.

Control of the Service

Uniformity in the Civil Service derives mainly from the fact that the Treasury exercises general control. One of the two Joint Permanent Secretaries to the Treasury is the official head of the Home Civil Service and the principal adviser of the Prime Minister on matters affecting the Civil Service as a whole, and in particular on appointments to senior posts in the service. The Treasury is responsible for the salaries and conditions of employment of civil servants; it controls total number of staff and the creation of higher posts, maintains a central organisation and methods division which serves all departments which do not maintain an organisation and methods branch of their own, and deals with general questions relating to training after entry into the Civil Service. It is also concerned with the number of departments and the distribution of functions.

Civil Service Classes

Because modern government touches almost every aspect of life, the Civil Service comprises officers with a wide variety of professional and technical qualifications. Where officers of a particular type are required in more than one department they are organised in general service or linked departmental classes. This ensures similar

¹ Including part-time staffs—two part-time officers being reckoned as equivalent to one whole-time officer.

grading and salary structures for the same type of officer in each department. The main classes are:

1. *The Administrative Class*, which is responsible for advising ministers on policy, for dealing with any difficulties which may arise in carrying out existing policy and for forecasting the probable effects of new measures and regulations. This relatively small class, which numbers about 2,550, is recruited largely from university graduates.
2. *The Executive Class* (numbering some 73,000), which is responsible for the day-to-day conduct of Government business, including the higher work of supply and accounts, within the framework of established policy. Members of this class may, after entry, train for specialist work such as that of auditor, actuary or statistician.
3. *The Specialist Classes*, which number about 110,000 in a variety of different categories for carrying out the wide range of specialised activities which are now undertaken by the Government. These categories include accountants, architects, doctors, engineers, lawyers, surveyors and scientists in all branches of science. The professionally qualified staff are assisted by a large number of technical and drawing office staffs.
4. *The Clerical Class* (the largest of the main classes, comprising about 126,000 officers), which undertakes all the usual clerical work involved in running departmental business, e.g., the preparation of accounts and the keeping of records, the handling of particular claims in accordance with known rules, and the summarising and annotation of documents for the assistance of senior officers.
5. *The Ancillary Clerical Classes* (with some 106,000 members), which include clerical assistants, shorthand typists and typists, duplicator operators and a rapidly increasing number of machine-operating grades.
6. *Messengerial and Minor Classes* (with some 34,000 members) which, in addition to messengers, include paper keepers, office cleaners and similar workers.

In addition there are departmental classes where employment is peculiar to one department. The main example is the Post Office with its postmen (112,000), telephone operators (56,000), postal and telegraph officers (22,000) and a wide range of staff for the installation, maintenance and development of the telephone, telegraph and wireless systems. Other examples are the Factory Inspectorate of the Ministry of Labour and the Schools Inspectorate of the Ministry of Education.

The Northern Ireland Civil Service

The Government of Northern Ireland has its own Civil Service which deals with matters transferred to its jurisdiction under the Government of Ireland Act, 1920. Subject to regional differences, the Northern Ireland Civil Service is modelled on its counterpart in Great Britain, but recruitment to permanent and pensionable posts is effected through the medium of a separate Civil Service Commission. Interchange of staff between the two Civil Services occurs to a minor extent only, and is a matter for departmental agreement in individual cases.

The Foreign Service

Her Majesty's Foreign Service is a separate self-contained service of the Crown, which provides an interchangeable staff (numbering about 4,000, some of whom are

unestablished) for service both at home and at United Kingdom diplomatic missions and consular posts in foreign countries.¹

The classes of the Foreign Service have their own nomenclature: Branch A corresponds roughly to the administrative class of the Home Civil Service; Branch B to the executive and clerical classes; and Branch C to the typing class. Branch D carries out security and guard duties at Foreign Service posts abroad, and Branch T technical duties in the Foreign Office and at Foreign Service posts abroad. There are no equivalents of Branches D and T in the Home Civil Service. Members of Branches A, B and C may be employed on any type of Foreign Service work—diplomatic, consular, commercial and ‘information’. In addition, various specialists and advisers who are seconded from the armed forces and from home Government departments (e.g., those concerned with financial, commercial or labour matters) are often attached to overseas posts. At many posts abroad some of the staff are locally engaged on a ‘temporary’ basis, i.e. they do not normally qualify for pensions.

Public Services of Overseas Dependent Territories

Overseas governments fill vacancies in their public services by the appointment of suitably qualified local candidates wherever possible; but because not all vacancies can be filled in this way, the Department of Technical Co-operation and the Crown Agents for Oversea Governments and Administrations are asked to recruit other candidates, principally from the United Kingdom.

Recruitment of Staff

The recruitment of all permanent civil servants in the Home Civil and Foreign Services is in the hands of the Civil Service Commission which, in the selection of entrants, is independent of both ministerial and parliamentary control; its members are appointed by the Crown on the advice of the Government. The normal method of entry is by open competition, conducted in accordance with regulations approved by the Treasury and consisting of written examinations or interviews, or both. The main points of entry into the main classes of the Home Civil Service are planned to correspond to definite levels in the British educational system, and it is the Commission’s duty to study the requirements of the Civil Service in the light of the education provided by the schools and universities.

Temporary civil servants, who do not qualify for pensions but are eligible for gratuities, are normally recruited by the department concerned. No qualifying examinations are required for entrance on a temporary basis to the general service.

Training after Entry

Each of the larger Government departments has a training officer and a number of instructors, who organise both general and technical courses, ranging from courses of systematic instruction for recruits in all classes to ‘refresher’ courses covering technical subjects or broader subjects such as management and supervision for more experienced staff.

Methods of training include discussion groups, case studies, instructional films, and educational visits to enable civil servants to study the working of appropriate outside bodies. Officers in the early years of their service may be transferred from branch to branch and, more rarely, from department to department, in order that they

¹ United Kingdom diplomatic posts in other independent Commonwealth countries are normally staffed from the Commonwealth Relations Office and (in respect of the Trade Commissioners’ Offices associated with them) from the Board of Trade.

may gain as wide an experience as possible of Civil Service activities, and there are openings for selected officers to travel abroad or to study at universities and other educational establishments. Special facilities are also available for officers who take up private studies, the degree of assistance depending upon the vocational value of the subject.

Training is co-ordinated by the Training and Education Division of the Treasury, which also runs central courses for members of the administrative, professional and scientific classes at different stages of their careers. In addition, the division trains departmental instructors and other special groups, for instance, superintendents of typists, audio-typists, and secretaries.

Promotion

A period of probation (lasting from one to two years according to grade, with extensions in certain instances) is the rule for all new entrants to the permanent Civil Service. Promotions from grade to grade are made by departments; those from class to class partly through centrally conducted competitions (open only to serving members of specified Civil Service classes), and partly by departments themselves. All promotions to the administrative class from other classes require Treasury approval. Promotions to most of the highest positions in the Civil Service, i.e. permanent secretary, deputy secretary, principal establishments officer and principal finance officer, must be approved by the Prime Minister; he is advised in these matters by the official head of the Home Civil Service.

Conditions of Service

Machinery for negotiation on conditions of service affecting the Civil Service as a whole is provided by the National Whitley Council,¹ which is composed jointly of official and staff representatives. Negotiating machinery for separate sections of the service is provided through the various staff associations which civil servants are encouraged to join (e.g., the Civil Service Clerical Association, the Union of Post Office Workers, the Society of Civil Servants, the Institution of Professional Civil Servants, and the Association of First Division Civil Servants), and through departmental Whitley Councils (of which there are about 70).

In general, the civil servant receives a salary which is intended to compare fairly with that paid for similar work outside the service, and usually he receives annual increments up to the maximum of the scale of the grade to which he belongs. In addition, although a civil servant holds office at the pleasure of the Crown and may therefore be dismissed at any time, in practice he enjoys a considerable measure of security of tenure. Thus every permanent civil servant may reasonably expect a full career in the public service, and a pension on retirement—though this, again, is not a legal right.

Civil servants are generally 'conditioned' to a given number of hours of attendance a week. Overtime is paid to members of most of the lower salary groups if they work longer than their 'conditioned' hours. The standard working week for office staffs is 42 hours in London and 44 hours in the provinces. Annual leave varies according to grade up to a maximum of six weeks, i.e. 30 working days, a year. Sick leave on full pay, less any national insurance benefit received, may be granted to permanent civil

¹ Whitley Councils are representative bodies for negotiation and joint consultation between managements and staffs; the councils are named after Mr. J. H. Whitley, former Speaker of the House of Commons and chairman of a committee which investigated industrial unrest from 1916 to 1919.

servants for up to six months in any twelve months, and on reduced pay up to a maximum of one year's sick leave in any four years.

Political and Private Activities

Officially, the position and functions of a civil servant remain the same whichever political party is in power; and it is his duty to serve the government of the day irrespective of his own political opinion. The extent to which a civil servant, as a private individual, is free to participate in political activities varies according to grade. For this purpose civil servants are divided into three groups: those who are completely free to engage in all kinds of national and local political activities (although if they intend standing for Parliament, they must resign their appointment before nomination day¹); those who are free, subject to the acceptance of the need for discretion and with the permission of the department, to take part in most activities except parliamentary candidature; and those who are debarred from national political activities though they may seek permission to take part in local government and political activities in the local field. In the non-industrial Civil Service, the completely free groups are the manipulative grades of the Post Office, and the minor grades such as cleaners and messengers. The intermediate group comprises those who have standing permission to engage in politics (other than parliamentary candidature) and those who must seek permission from their department. The group includes mainly clerical and typing grades, and the granting of permission depends, broadly, on the work that they do. The group which is not allowed to take part in national political activities includes the executive, the professional, the scientific and technical, and the administrative grades. In general, because the reputation of the service must be closely guarded, permission to take part in local political activities will be refused to members of this group if the local activities are conducted on the same party lines and through the same party organisations as national political activities. Where permission is granted, it is subject to a code of discretion and to the obligation to notify the department of election or co-option to a local council.

Civil servants of every grade may, of course, exercise the right of all citizens to register their private political opinions on appropriate occasions, for instance, at general elections or at local authority elections.

The private political views of civil servants are not as a general rule a matter of official concern, but there are duties in which secrecy is so vitally important to State security that the Government does not feel itself justified in employing any one to carry them out whose reliability is in doubt. For this reason no one who is known to be a member of, or actively associated or in sympathy with, the Communist Party or with Fascist organisations is employed in connection with secret work. Otherwise, every civil servant may engage in such private activities as he wishes, provided that these do not in any way conflict with his official duties, nor with the provisions of the Official Secrets Acts of 1911 and 1920 and the Prevention of Corruption Act of 1906. A civil servant must not, however, use his official position to further his private interest; and he is therefore subject to restrictions in matters of commerce and business from which the ordinary citizen is free, e.g., he may not hold private interests in public contracts; and he may not use official information in writing, broadcasting or lecturing without the express approval of his department. Above all, a civil servant is expected to conform to the high standards of integrity which characterise the service to which he belongs.

¹ Any civil servant not elected will be reinstated in his previous capacity on application within a week of the declaration of an election result.

LOCAL GOVERNMENT

Local government has been defined as government by popularly elected bodies charged with administrative and executive duties in matters concerning the inhabitants of a particular district or place and vested with powers to make by-laws¹ for their guidance.

Government on a local basis has been part of the administrative system of the United Kingdom for many centuries. In its present shape it dates back to the late nineteenth century, when the conception of a comprehensive system of locally elected councils to manage various services provided for the benefit of the community was first incorporated in statute law. The large increase in population since that time, and the equally massive transformation in the range, complexity and scale of local authority functions, have made it necessary to review local government throughout England and Wales, and proposals have been made in some areas (see p. 78) for a new structure more closely related to contemporary and possible future needs.

Relationship between Central and Local Government

As the supreme authority in the United Kingdom, Parliament controls local authorities through Acts of Parliament, which require or permit elected local councils to implement policies prescribed and defined in those Acts. The scope of local government is limited by the same means; no council may go beyond the bounds fixed for its activities by an Act of Parliament.

Legislation is supported by departmental supervision: Parliament makes certain ministers responsible for securing the efficient functioning of local government services. Departmental supervision is exercised by means of inspections, inquiries, examinations of statistics, authorisation of loans, the issue of advisory circulars and statutory instruments, the approval of by-laws, and the administration of Exchequer grants. The Ministry of Housing and Local Government is the main link between local authorities and the central Government in England and Wales; in Scotland the Scottish Development Department is responsible for general policy in regard to local government; and in Northern Ireland the Ministry of Health and Local Government.

Principal Types of Local Authority

For purposes of local government, England and Wales and Northern Ireland are divided into county boroughs and administrative counties. Administrative counties (outside London) are further divided into three types of county district: non-county boroughs; urban districts; and rural districts. Rural districts are themselves subdivided into parishes (except in Northern Ireland). Scotland is divided into counties (including four counties of cities) which are independently administered; large and small burghs; and districts. Each local authority division is administered by a different council, as follows:

*England and Wales*²

county councils (61)	rural district councils (474) ³
county borough councils (83)	parish councils (some 7,500) or
non-county borough councils (318)	parish meetings (some 3,300).
urban district councils (564)	

¹ Laws of local application which must be approved by the appropriate minister.

² Excluding the county of London.

³ Including the Isles of Scilly.

Northern Ireland

county councils (6)	urban district councils (25)
county borough councils (2)	town commissioners (1)
borough councils (9)	rural district councils (31).

Scotland

county councils (33, of which two pairs are combined for certain purposes)
town councils (198, consisting of: the authorities for counties of cities, 4; other large burghs, 20; and small burghs, 174)
district councils (199: two counties are not divided into districts).

There are, in addition, the local authorities for *London*, which are unlike those in the rest of the United Kingdom. They are:

- the London County Council
- the Corporation of the City of London
- metropolitan borough councils (28).

Constitution and Election of Councils

Local councils comprise a number of unpaid elected councillors (and, in some cases, aldermen elected by the councillors), presided over by a chairman who has varied ceremonial and civic duties to perform in addition to his work on the council. In most boroughs of England and Wales and Northern Ireland the chairman is the Mayor; in the City of London and certain important boroughs, the Lord Mayor; in the Scottish counties, the Convener; and in the burghs, the Provost or Lord Provost.

The normal term of office of a councillor elected to any form of local government is three years; aldermen hold office for six years. In some local authority areas the whole council retires every third year and another is elected immediately; in other areas elections are held annually, when one-third of the councillors retire. Procedure at local government elections is governed by rules laid down by the Representation of the People Act, 1949.

Any person (including a member of the House of Lords) is entitled to vote at a local government election provided that he or she is 21 years of age or over on the qualifying date, is a British subject or a citizen of the Irish Republic, is not subject to any legal incapacity and is registered as a local government elector for the area for which the election is held. In Great Britain a person qualifies for registration as a local government elector if, on the qualifying date for the register (compiled annually), he or she is resident in the area or occupies as owner or tenant any rateable land or premises in the area of a yearly value of not less than £10. In Northern Ireland, in order to qualify for registration as a local government elector a person must have been born in Northern Ireland, or alternatively, have resided continuously in the United Kingdom for seven years immediately prior to the qualifying date and must have either a resident occupier's qualification, or a general occupier's qualification.

Voting takes place at polling stations arranged by the council concerned, and under the supervision of a presiding officer appointed for the purpose. The procedure for local government voting in Great Britain is similar to that for parliamentary elections, although facilities for postal voting are more restricted.

Every candidate for election as a councillor stands either as a representative of one of the national political parties, or as a member of an association representing some local interest, or as an independent. Each must be nominated by two electors, as

proposer and seconder; and in England and Wales (except in elections for metropolitan borough councils, rural district councils and parish councils) eight other electors for the area must assent to the nomination. In Scotland each county and district council candidate requires two proposers and each town council candidate a proposer and five assenters. Candidates must be of British nationality, over 21 years of age, and must (1) be registered as local government electors in the register of electors for the area for which they seek election, or (2) have resided within that area during the whole of the twelve months preceding the election (or within 3 miles in the case of parish councils), or (3) in England and Wales, own freehold or leasehold land in the area. Candidates are also subject to a number of statutory disqualifications designed to ensure that unsuitable persons do not offer themselves for election.

Procedure at local government elections in Northern Ireland is governed by electoral regulations made by the Ministry of Home Affairs for Northern Ireland. These regulations are, in general, similar to those which apply in Great Britain, though differing in certain particulars; for example, the town clerk or the clerk to the council is the returning officer for all elections to the authority; there is no postal voting and the only persons who may vote by proxy are Service voters.

Just as Great Britain as a whole is divided into constituencies for the purpose of parliamentary elections, so, for local council elections, most local authority areas are divided into electoral districts. Administrative counties are split up, in accordance with orders made by the Secretary of State for the Home Department, the Minister of Housing and Local Government or the Secretary of State for Scotland, into 'electoral divisions'. Boroughs, urban districts and rural districts in England and Wales, and burghs in Scotland, are either divided into 'wards', or, if they are small, left as single units. In rural districts the wards are based on parishes which, if large enough, may themselves be split into parish wards.

Outside London, county divisions each return one member. The LCC electoral divisions (which cover the same areas as the London parliamentary constituencies) return three members each; in other types of local authority area each ward may return one or more members.

Functions and Services

It is the primary duty of every local authority to provide and administer such environmental and social services as Acts of Parliament require it to provide and administer. It may provide additional services under the permissive powers of a general Act or under powers granted to it by Adoptive Acts or by local or Private Bill legislation.

The responsibilities of local authorities depend upon their type, as follows: in England (outside the County of London) and Wales county borough councils are all-purpose authorities, while both county councils and county district councils have particular functions allotted to them¹, which they exercise independently to a considerable extent, although there is a certain degree of delegation from county councils to county district councils, especially of duties connected with town and country planning and the education, health and welfare services. Parish councils or parish meetings have a few functions which they may exercise of right. In Scotland the town councils of the counties of cities are all-purpose authorities; elsewhere, the county councils, the town councils and the district councils all share in local government work.

¹ For instance, county councils are generally responsible for the police, fire and civil defence services, while the district councils administer most of the environmental and sanitary services.

In Northern Ireland the position is broadly similar to that in England and Wales, but the local authorities are not called upon to provide or administer police, civil defence or (except in Belfast) fire services; and county councils do not in general delegate any of their functions to county district councils.

The broad principle underlying the distribution of powers and duties between the London County Council (LCC) and the metropolitan borough councils is that all those powers and duties which require uniformity of action throughout the whole of London should be administered by the LCC, while those that can be locally managed should be vested in the borough councils. In the City of London (an area of approximately one square mile in the centre of the metropolis) the City Corporation exercises the general powers administered and duties performed by the metropolitan borough councils, and also a number of functions which, in the rest of London, devolve on the LCC. The City Corporation is not, however, an all-purpose authority, since certain services in the City (for instance, education) are administered by the LCC.

Local authority services are generally classified under three heads: environmental, protective and personal. The environmental services are designed to secure and maintain satisfactory standards in the citizens' surroundings, and include the inspection and abatement of nuisances, drainage, sewerage, street cleansing, refuse collection and disposal, litter control, rodent control, the supervision of water supplies, measures for ensuring food hygiene and for preventing air pollution, and the provision of baths and washhouses. They also include the services for bridge and highway construction and maintenance, for street lighting, public safety on the roads, the provision of amenities, and town and country planning. The protective services are the fire service, the civil defence service and the police service, while the personal services range from health services, education and housing to the provision of entertainment.

Local services concerned primarily with health and welfare cover the provision of ante-natal, post-natal and child welfare clinics, and some residential and day nurseries; the provision and supervision of midwifery services, health visitors and home nursing facilities; measures for the prevention of illness and the aftercare of physically or mentally sick persons; the provision of domestic help where necessary; the ambulance service; the provision of facilities for vaccination and immunisation against certain infectious diseases; and the services for the permanently disabled or handicapped, for the aged and infirm and for children deprived of a normal home life. Education and culture are promoted by the establishment and maintenance of various types of schools; by the provision of adult education centres, and art and technical colleges; by the award of grants and scholarships to students of all kinds; and by the provision of libraries, art galleries and museums. Local authorities provide living accommodation by building new houses or by acquiring and converting suitable existing ones. Most houses owned by local authorities are for letting, but they may, in certain cases, be offered for sale. Councils may also make loans to persons wishing to buy privately owned houses; and they are responsible for ensuring that houses unfit for human habitation are demolished or closed.

Some local authorities also engage in trading services, such as passenger transport, water supply, and harbour, dock and pier services, but to a lesser extent than in the past.

The above is only a brief outline of local authority services. Fuller information is given under the relevant subject headings in later chapters of this book.

Internal Organisation of Local Authorities

Local authorities are free to a very considerable extent to make their own internal arrangements and to choose the means and methods by which they will discharge

their responsibilities. Questions of policy and principle are usually decided by the whole council, which appoints committees to carry out the detailed administration of its various services. The more important of the committees of the larger authorities divide their work among sub-committees, which stand to the parent committee in a relation similar to that of the main committees to the whole council. The execution of the policy decided upon by the council and the committees rests with salaried officers and employees, whose number may vary from about half a dozen in a small rural district to several thousands in the large counties and in the larger county boroughs and burghs.

Apart from one or two minor provisions regarding the representation of specialists on committees and the length of time certain members may hold office, committees of councils are free from legal restrictions; even those known as 'statutory' committees are constituted according to individual requirements and not according to any set pattern laid down. For purposes of classification, however, they may be divided into two kinds: ordinary committees and joint committees. Ordinary committees may be further divided into statutory committees, the appointment of which is compulsory under an Act of Parliament; standing committees, which are appointed in accordance with the standing orders of the council on a permanent basis according to the extent of the council's business; and special committees, which a council may set up for a limited period to deal with a particular problem that once solved is unlikely to recur.

Joint committees or joint boards consist of representatives of more than one authority. They are usually established for services that can be more effectively administered over a wider area than that controlled by a single council, e.g., town and country planning, water supplies and the police service.

Committees of a local authority may be advisory or executive; their powers and duties are usually laid down in the appointing council's standing orders or, in the case of a county or large burgh in Scotland, in the council's administrative scheme. A council is free to delegate all its powers to committees, except its powers in connection with raising loans, levying rates, or raising precepts (financial demands) which are legally reserved to the council as a whole.

The public and the press are admitted to all meetings of the council (and of some committees) but may be excluded while a particular item is considered if the council resolve that publicity for that matter would be prejudicial to the public interest.

Officers and Employees

Generally speaking, councils are free to make such appointments as they deem necessary for carrying out their work, although certain posts (for instance, the clerk, the treasurer, and the medical officer of health) are compulsory in almost all councils. Choice of personnel is also left to a great extent to the individual council; in theory, the appointment of certain chief officers is subject to some central control but, in practice, the nominee of the council is nearly always accepted.

As a general rule, officers are of three kinds: heads of departments or chief officers, whose duties are mainly of an administrative and managerial kind; subordinate officers employed in a professional, clerical or technical capacity; and manual workers who are employed to do the physical work for which the council is responsible. Senior staff appointments are usually made at the instance of the committee or committees particularly concerned; most junior appointments are made by heads of departments, who are also responsible for engaging the manual labour required. Appointments and engagements are always made in conformity with a set establishment and committees are informed of any appointments which they have not made themselves.

Rates of pay and conditions of service for local authority staff are within the jurisdiction of the employing council (except where the proposed salary of an officer requires the approval of a Government department, as in the case of the clerk of a county council in England and Wales). They are based on recommendations made by the Whitley Councils, of which there are several, including the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services, the National Joint Industrial Council for Local Authorities' Non-Trading Services (Manual Workers), the National Joint Council for County Council Roadmen, and, in Scotland, the Joint Negotiating Committee for Chief Officials of Local Authorities (Scotland) and the Joint Industrial Councils for Local Authority Services. In England and Wales conditions of service and salary scales for senior local government officers are determined by special negotiating machinery. The local government service in Northern Ireland has its separate joint negotiating machinery at various levels.

All local government officers are expected to maintain a high standard of conduct; as public servants they 'must not only be honest in fact, but must be beyond the reach of the suspicion of dishonesty'.

Local Government Finance

Local authority income derives from Exchequer grants (paid in Northern Ireland by the Government of Northern Ireland), from local rates, from loans, from trading receipts, rents, fees and other miscellaneous sources.

Government grants finance about one-third of local authorities' net expenditure. The largest single grant is the general grant which is paid in aid of local revenues by the Minister of Housing and Local Government to county and county borough councils in England and Wales, and by the Secretary of State for Scotland to county and town councils in Scotland. The total grant is fixed in advance for a period of two or more years and allocated among the authorities according to a formula based mainly on such factors as size and distribution of population and numbers of school children. In fixing the amount the Government takes into consideration the current rate of expenditure on the services concerned, any probable fluctuation in the demand for those services, the need for developing services, and the extent to which, having regard to the state of the national economy, it is reasonable to develop them. If, during any grant period, an unforeseen rise in the general level of prices, costs or remuneration occurs and its effect on the cost of providing the services covered is so great that it is felt that the increase ought not to fall entirely on local authorities, the ministers concerned are empowered to adjust the amount of the grant. They also have power to reduce the allocation of any authority (subject to parliamentary confirmation) if they are satisfied that that authority has failed to achieve or maintain services of reasonable standards compared with those provided in other areas. In Northern Ireland, instead of the general grant, there is a system of grants towards the cost of specific services (for example, education, roads, housing, health and welfare, water supplies and sewerage), supplemented by a general Exchequer contribution which compensates for derating and takes account of the needs and resources of individual authorities.

Other government grants are: percentage grants, of which the two principal examples are those for the police service and highways; unit grants, for instance, housing subsidies; rate deficiency grants (Exchequer equalisation grants in Scotland), which are contributions to the general revenues of the poorer local authorities to enable them to bring their services up to a higher level of efficiency; and assigned revenues, which are the proceeds of certain national taxes handed over to local authorities, such

as game and gun licences and licences for hawkers, pawnbrokers, money-lenders and refreshment houses and, except in Scotland, dog licences.

Rates, which are a form of local taxation paid by the occupiers of land and buildings as contributions to the cost of local services, provide about one-third of the total income of local authorities. They are levied by a poundage on the rateable value of property, which in England and Wales is equivalent to the rent which the property might reasonably be expected to command if let from year to year with the tenant bearing the rates and the cost of insurance and repairs. Valuation for rating is undertaken by valuation officers of the Board of Inland Revenue, who prepare valuation lists every five years for each rating area. New valuation lists are due to come into force during 1963 when, except in Northern Ireland, rates for domestic property will be based, generally, on current rental values and industry and freight transport will be fully rated.

Appeals from valuation may be made to local valuation courts, each consisting of three members of an independent local valuation panel, and thereafter to the Lands Tribunal.

In Scotland valuation on a basis similar to that in England and Wales came into force in 1961; formerly, it had been based, primarily, on the rent actually payable. Valuation is carried out by assessors appointed by the councils of counties and counties of cities. Appeals lie to the valuation appeal committee of each valuation area and thereafter to the Lands Valuation Appeal Court of the Court of Session. A Scottish Valuation Advisory Council has been established by the Secretary of State for Scotland. In Northern Ireland the valuation authority is the Commissioner of Valuation, whose department is part of the Ministry of Finance. The basis of valuation is broadly similar to that of England and Wales, except that industry and freight transport are rated at a quarter of their net annual value.

The responsibility for levying and collecting the rates in England and Wales lies with the councils of county boroughs and county districts; in London, with the City Corporation and the metropolitan borough councils. County councils finance themselves by issuing a precept on the county districts (in London the metropolitan borough councils and the City Corporation) for the sums of money required; parishes are financed by rates levied by the appropriate rural district council on property within the parish as an addition to the general rates. Rates in Scotland are levied by the town councils in burghs and by county councils elsewhere; to cover their expenditure, district councils issue a requisition each year to the county council; a town council has to meet an annual requisition from the county council in respect of the burgh's share of the expenditure on functions exercised by the county council throughout the county, including the burgh. In Northern Ireland county councils are responsible for making, levying and collecting the rates, except in such parts of the county as fall within the jurisdiction of the county borough, borough, or urban district councils.

Loans may be raised by all types of local authority for financing capital expenditure, subject to the consent of the Minister of Housing and Local Government or the Secretary of State for Scotland, who are guided by the recommendations of the Government department responsible for the service for which the capital is required. In Northern Ireland the Government department responsible for the service also issues the appropriate loan approvals. Borrowing powers for specific purposes are sometimes included among the provisions of local Acts; the London County Council seeks parliamentary sanction every year to raise the money it needs for capital expenditure.

Loans may be raised by issuing stock upon the Stock Exchange, by internal borrowing, by private mortgage, or from the Public Works Loan Board which is financed

by the Exchequer and acts as lender of last resort to local authorities which cannot borrow on reasonable terms on the market.

Internal control of finance is exercised on behalf of the council concerned by a finance committee, whose function it is to keep the financial policy of the council under constant review. In England and Wales an external audit is carried out (except for certain general accounts in most of the county borough and about two-thirds of the borough councils) by district auditors appointed by the Ministry of Housing and Local Government. County borough and borough councils must use the services of the district auditor for accounts which relate to education, national assistance, children, local health services, coast protection, motor tax, rate collection, fire, civil defence and town and country planning, but they may employ other auditors to do the remaining work. In Scotland all accounts are audited by a professional auditor appointed by the Secretary of State for Scotland and paid by the council concerned, and in Northern Ireland by special local government auditors appointed by the Ministry of Health and Local Government.

Proposals for Reform

In the seventy years since the existing local government structure was set up, the population of England and Wales has grown by nearly 14 million, the greatest concentration of people being in the London area and the six other conurbations of England (see p. 17). At the same time, the number and scope of local authority activities have progressively increased: local authorities are nowadays responsible not only for most of the environmental and personal welfare services, but also for important functions in relation to a number of services of nation-wide concern.

In contrast to all this, the basis of local government has remained virtually unchanged. In some areas, and more especially in those with a high density of industry and population, developments have inevitably led to some confusion and loss of efficiency, since the structure is no longer in balance with the work that modern councils have to do. For this reason a Royal Commission was appointed in 1957 to study the problems of local government in Greater London. Shortly afterwards two Local Government Commissions were established to carry out a similar function for England and for Wales respectively, though working in a different way.

The proposals of the Royal Commission on Greater London¹ were published in 1960; the main recommendation was that the primary units of local government in the area should be Greater London boroughs with a population range of 100,000 to 250,000, and that there should be a Council for Greater London (which should supersede the existing county councils in the area) to exercise those functions which could not be effectively exercised by individual boroughs. This was accepted as the basis of reorganisation in a White Paper², published in 1961, in which the Government broadly endorsed the Commission's overall design although it considered that larger (and therefore fewer) boroughs would be better equipped to carry out the important duties with which they would be charged. It is the aim of the Government to introduce legislation in time for the new authorities to take over in the spring of 1965, but there is to be prior consultation between Government departments and local authorities upon many matters, and further study will be necessary before the Government is in a position to set out detailed proposals on the financial aspect of the changes proposed.

The Local Government Commission for England, which is investigating the circumstances of local government in the counties and county boroughs (outside

¹ *Report of the Royal Commission on Local Government in Greater London. Cmnd. 1164.*

² *London Government: Government Proposals for Reorganisation. Cmnd. 1562.*

Greater London) and in special review areas (Tyneside, West Yorkshire, South-East Lancashire, Merseyside and the West Midlands) has published final reports on three review areas, and provisional proposals for a further three. Draft proposals for Wales have been published by the Local Government Commission for Wales. Before making their proposals (which, in general, envisage substantially larger and therefore fewer administrative units), the Commissions are required to consult the local authorities concerned and other interested bodies or persons. The final reports have to be submitted to the Minister of Housing and Local Government and cannot be put into effect (with or without modifications) except by order of the Minister, which must be laid before Parliament with the Commission's report.

THE FIRE SERVICE

The fire services in Great Britain are organised on a local basis, subject to a measure of central control exercised by the Home Secretary (in England and Wales) and the Secretary of State for Scotland. The fire services in Northern Ireland are controlled by two authorities, the Belfast Corporation and the Northern Ireland Fire Authority, which are responsible to the Minister of Home Affairs. Every part of the United Kingdom is covered by a public fire brigade.

FIRE SERVICES IN GREAT BRITAIN

There are 135 local authority fire brigades in England and Wales and 11 in Scotland.

Fire Authorities

In England and Wales, under the Fire Services Act, 1947, separate fire brigades are administered by the county or county borough councils, which are the fire authorities for their areas and have powers and duties which they exercise either separately or as combined authorities where neighbouring councils care to make such arrangements in the interests of the efficiency of the service. The London County Council is in direct control of the London Fire Brigade. In Scotland the local authorities are grouped in eleven areas each with a single brigade; with the exception of Glasgow, where the town council of the city is the responsible authority, each area is administered by a joint committee representative of the councils of the counties and large burghs in the area.

Central Control

The Home Secretary and the Secretary of State for Scotland are empowered to make regulations prescribing such matters as the maintenance of discipline, training, and pensions in local fire brigades, and their approval is necessary for certain reductions in establishment schemes. In matters affecting the fire brigades as a whole (excluding discipline and similar matters), each minister is advised by the appropriate Central Fire Brigades Advisory Council, consisting of representatives of the local authority associations, representatives of the chief officers (firemasters in Scotland) and other members of the brigades, and other persons having special qualifications. The advisory councils are not concerned with the conditions of service of members of the brigades; on these subjects the National Joint Council for Local Authorities' Fire Brigades in Great Britain and the National Joint Council for Chief Officers of Local Authorities' Fire Brigades in Great Britain are the negotiating bodies.

Central control is also exercised through the inspectors of fire services, whose duties include advising the ministers on technical matters.

Establishment Schemes

Each fire authority is required to draw up a scheme showing the establishment of officers and other ranks (both whole-time and part-time), the number and location of fire stations and the number and type of appliances considered necessary for the provision of an all-over cover of its area. Establishments vary considerably according to the fire risks in the area concerned and are not always up to strength, but in the whole of England and Wales there are about 21,000 whole-time and 14,200 part-time firemen, operating more than 3,500 fire-fighting appliances (including pumps, turntable ladders, water tenders, and emergency and salvage tenders) housed in some 1,600 fire stations. In Scotland there are approximately 2,300 whole-time and 2,600 part-time firemen, 600 fire-fighting appliances, and 320 fire stations.

It is the duty of each fire authority to purchase such vehicles and equipment as are required under the establishment scheme. Equipment is standardised, and appliances are bought by fire authorities to requirement specifications, which ensure that essential standards are maintained and yet allow sufficient freedom of design to meet local requirements.

Operational Methods

Each fire authority is required to appoint a chief fire officer (firemaster in Scotland) to be the head administrative and executive officer for its fire services. The appointment must be ratified by the Home Secretary or by the Secretary of State for Scotland. The chief fire officer or firemaster is responsible to the fire authority for seeing that both the fire brigade and the fire department (which is the administrative centre and staff headquarters for the fire brigade) are organised and managed in accordance with policy laid down.

There is a central headquarters for operational control, which is exercised on a local basis by divisional officers in charge of the geographical divisions into which most areas are divided. Each divisional officer has at his disposal a small staff of whole-time, and a varying number of part-time, officers and men; and he is responsible for mobilising this force in the strength necessary for dealing with any outbreaks of fire in his division. Constant communication is maintained between divisional and brigade headquarters, and if at any time an outbreak of fire should grow beyond the capabilities of a divisional force, help is sent from one or more neighbouring divisions in its area, or even from the area of another fire authority. Under arrangements for mutual help made by all fire authorities, the nearest available force is sent to the scene of a fire, regardless of area boundaries.

In England and Wales the average number of fire calls a year totals about 250,000, including false alarms and special service calls for such purposes as rescuing persons and animals trapped in dangerous situations, dealing with crashed aircraft, and pumping and salvage operations. Some 500 people are rescued each year through fire service operations. In Scotland the average number of fire calls a year, including false alarms and special services, is 28,000, and the average number of persons rescued from fires and other occurrences each year is 200.

Firemen

About two-thirds of the total number of firemen work on a whole-time basis. The part-time firemen include: retained firemen who, in return for a retaining fee, undertake to attend fires if called upon; volunteer firemen, who receive no remuneration; and auxiliary firemen, who are enrolled as members of individual fire brigades but with restricted duties. In addition, there are the fire-fighting organisations outside the

national service, for example, those maintained by the Admiralty, the War Office, the Air Ministry, the Ministry of Aviation, and by some large industrial and commercial concerns.

Ranks in the fire services (for men) are chief fire officer, assistant chief fire officer (firemaster and assistant firemaster in Scotland), divisional officer, assistant divisional officer, station officer, sub-officer, leading fireman, and fireman. Ranks in the women's branch, which is mainly concerned with controls and with administrative and clerical duties are (for Great Britain as a whole) group officer, assistant group officer, senior leading firewoman, leading firewoman, and firewoman. Promotion in the lower ranks of the fire-fighting forces is by examination and by merit, and in the higher ranks by merit only.

Recruits and junior ranks in the fire service in England and Wales receive practical training in basic firemanship at training schools run by fire authorities and refresher courses arranged by fire departments. In Scotland similar training is carried out at a central training school which is the responsibility of the Scottish Home and Health Department. Advanced and specialised training courses, including fire prevention courses, are provided for the higher ranks at the Fire Service College, Wotton House, near Dorking, Surrey, which is maintained by the Home Office and the Scottish Home and Health Department as the central training institution for the fire services. The Home Office Fire Service Department arranges facilities for properly accredited officers from overseas fire services to study the organisation, current training methods, appliances and equipment of the British fire brigades.

Finance

The fire authorities bear the cost of maintaining the fire service. There is an Exchequer contribution which is included in the aggregate amount of the general grant. For the purpose of arriving at the amount of this contribution, the Government receives from fire authorities (at the time when the grant is to be considered) details of the last known actual expenditure for a year, together with estimates for the impending general grant period.

Research

Research into all aspects of fire prevention and fire-fighting, and in particular into the relationship between the fire-fighter, the availability of fire equipment and fire losses, is undertaken mainly by the Joint Fire Research Organisation under the direction of the Fire Research Board. The costs of the organisation are shared equally between the Department of Scientific and Industrial Research and the fire insurance companies who, jointly, nominate the members of the Fire Research Board. The organisation operates from a fire research station at which practical tests are carried out. Problems of fire protection are also studied by the Fire Protection Association, established by the Fire Officers' Committee¹ as the national advisory centre for industry and the general public on the protection of life and property against fire.

FIRE SERVICES IN NORTHERN IRELAND

In Northern Ireland the Belfast Corporation controls the Belfast Fire Brigade and is responsible for the area inside the city boundary, and the Northern Ireland Fire Authority covers the rest of the country outside Belfast.

¹ The Fire Officers' Committee is representative of some, but not all, of the fire insurance companies in Britain.

The Belfast Fire Brigade maintains five whole-time stations and has an establishment of 225 officers and men manning 13 appliances, while the Northern Ireland Fire Authority has one whole-time station in Londonderry and 44 other stations throughout the remainder of the area, and an establishment of 113 whole-time officers and men and 700 part-time firemen, manning 72 appliances.

Ranks of Firemen

The ranks of firemen in Northern Ireland are: for the Northern Ireland Fire Authority—fire force commander, deputy fire force commander, divisional officer, assistant divisional officer, senior company officer, company officer, cadet officer, section leader, leading fireman, and fireman; and for the Belfast Fire Brigade—chief officer, assistant chief officer, divisional officer, assistant divisional officer, station officer, sub-officer, leading fireman, and fireman. There are only a few women in the Northern Ireland Fire Service, all of the rank of firewoman.

Finance

The Fire Services (Amendment) Act (Northern Ireland), 1956, provides that the amount of fire service grant payable to the Northern Ireland Fire Authority should be 50 per cent of the loan charges in respect of capital expenditure which do not exceed £60,000 and 25 per cent of the amount (if any) by which the loan charges exceed £60,000, together with 50 per cent of the first £150,000 of other net expenditure and 25 per cent of the excess over that amount. Expenditure in excess of the fire service grant is apportioned among the local authorities liable to contribute to the funds of the Authority. Under the Fire Services Acts, the Belfast Fire Brigade cannot qualify for the payment of fire service grant.

3

LAW AND ORDER

THE LAW

In the United Kingdom the maintenance of public order depends on the obedience which the public accord to the law. Individuals obey the law out of a sense of private conviction or public duty, or, in the last resort, because they know that if they fail to do so they will be penalised by the authorities of the State. On the other hand, the use of penal measures by State authorities must be, and in fact is, confined to what the law allows.

Although the United Kingdom is a unitary state, it does not have a single body of law applicable universally within its limits; and in England and Wales, Northern Ireland, and Scotland, respectively, separate systems are in force (see p. 25). There are, however, similarities between the systems. As between England and Wales on the one hand and Northern Ireland on the other the similarity is general, due to the closeness of the association between these countries since the twelfth century. As between Scotland and the rest of the United Kingdom the differences are more extensive, although the existence, during the past 250 years, of a common Parliament, a common public opinion on broader issues, and a common court of appeal for civil cases has resulted in substantial identity at many points.

A feature which is common to all the systems of law in the United Kingdom (and differentiates them from some continental systems) is that there is no complete code. The sources of law in all the systems include statutes dealing with particular subjects, and a large amount of unwritten or 'common' law, which can be gathered from numerous decisions of the courts and from other sources.

The common law of England originated in the customs of the realm and was built up by decisions of the courts. A supplementary system of law, known as 'equity', came into being during the Middle Ages to provide and enforce more effective protection for existing legal rights. It was administered by a separate court and later became a separate body of legal rules. In 1873 the courts of equity were fused with the courts of common law, so that all courts now apply both systems, but where they conflict, equity prevails.

In Scotland the basis of the modern common law is embodied in the writings of certain seventeenth, eighteenth and early nineteenth century lawyers of great repute who, between them, described systematically almost the whole field of private and criminal law as existing in their times. Broadly speaking, the principles enunciated by these lawyers, together with the many judicial decisions which have followed and developed those principles, form the body of Scots non-statutory law. Scotland has never had a separate system of equity—equitable principles having always permeated the ordinary rules of law.

Statute law includes Acts of Parliament and delegated or subordinate legislation made under powers conferred by Parliament. It is absolutely binding on all courts of the United Kingdom, taking precedence over any other source of law.

Another feature common to the legal systems of the United Kingdom is the distinction made between the criminal law and the civil law. Criminal law is concerned with wrongs against the community as a whole; civil law is concerned with the rights, duties and obligations of individual members of the community between themselves.

CRIMINAL LAW IN ENGLAND AND WALES

Criminal Courts

The courts of ordinary criminal jurisdiction in England and Wales include: magistrates' courts, which try the less serious offences and conduct preliminary inquiries into the more serious offences; courts of quarter sessions, which try most of the more serious offences; and courts of assize (including the Central Criminal Court in London and the Crown Courts in Liverpool and Manchester) which try the gravest offences and cases of special difficulty. All trials at quarter sessions and assizes are conducted with a jury (see p. 97).

Magistrates' Courts

Most magistrates' courts consist of two to seven lay magistrates who are unpaid and do not normally possess any legal qualifications but obtain advice on points of law, when required, from the clerk to the justices. In central London, however, and some of the other larger cities, there are also paid, or 'stipendiary' magistrates, who are professional lawyers; they usually sit alone. The great majority of offences (over 97 per cent) committed in England and Wales are disposed of in magistrates' courts.

Specially qualified magistrates sit in *juvenile courts* to hear cases involving young persons under 17 years of age who are charged with any offence except homicide or are brought before the court as being in need of care and protection, as beyond control, or as persistent truants. These courts also deal with many applications for the adoption of children. Consisting of not more than three justices (normally including at least one man and one woman), they sit either in different rooms or buildings from those in which other courts are sitting, or on a different day; only persons within certain specified categories are admitted and only limited publicity is allowed.

Domestic Proceedings are also tried by not more than three justices, of whom one should be a man and one a woman. The hearing of domestic proceedings is separated from other business and, as in juvenile courts, the public is excluded.

Quarter Sessions

Courts of quarter sessions sit at least four times a year; in the busier places, they meet much more frequently than this.

All counties have courts of quarter sessions and 96 boroughs also have separate courts which exercise jurisdiction within their own boundaries. In counties the courts are generally presided over by a bench of lay magistrates under a legally qualified chairman. In London, Lancashire and Middlesex, where the courts have continuous sittings, the chairman and deputy chairman usually preside alone. In boroughs the courts are presided over by a single judicial officer, the Recorder, who is a barrister specially appointed to act part-time in this capacity.

Assizes

Courts of assize are branches of the High Court presided over by High Court judges and held at assize towns—generally in the county town of each county and in certain of the other larger towns and cities. The judges go round 'on circuit' three times a year—on the autumn, winter and summer assizes. Each town is visited once

on each circuit; the larger towns are visited twice. After the trial of criminal cases in each town, the judges deal with civil cases.

Crown Courts

Because of the heavy concentration of court work in Liverpool and Manchester, two Crown Courts have been set up to act both as quarter sessions for the two cities and as assize courts for South Lancashire. The courts are presided over by the Recorders of Liverpool and Manchester, who are whole-time judicial officers.

The Central Criminal Court

The Central Criminal Court at the Old Bailey in the City of London acts as the court of assize for the criminal business of London, Middlesex and parts of the other home counties. More than one court sits at a time, each presided over by a salaried judicial officer. The judges sitting at the Old Bailey include one High Court judge and the Recorder of London.

Criminal Appeals

Appeals may be brought on a point of law by either the prosecutor or the defendant direct from the magistrates' court to the High Court; but the more usual appeal is that of a convicted person against his conviction or his sentence, which may be heard by quarter sessions for a borough, or by the appeal committee of quarter sessions (consisting of between three and twelve magistrates) for a county.

Appeals against convictions or sentences by quarter sessions, assizes or Crown courts go to the *Court of Criminal Appeal*. Appeals on questions of law may be brought as of right, but on other grounds only by leave. The Lord Chief Justice usually presides in the Court of Criminal Appeal, which consists of three or, in special cases, five judges of the Queen's Bench Division.

A further appeal from the Court of Criminal Appeal to the *House of Lords* can be brought if the court certifies that a point of law of general public importance is involved and it appears to the court or the House of Lords that the point is one that ought to be considered by the House.

Proceedings Before Trial

Prosecutions

In theory, there is no restriction on the right of a private citizen to institute criminal proceedings, but most prosecutions in England and Wales are initiated and conducted by the police. In some cases the consent of the Attorney General or the Director of Public Prosecutions or, less frequently, a Government department is required. The Director of Public Prosecutions is also concerned with prosecutions in all the more serious classes of indictable offence (i.e. involving formal written accusation); in courts where a substantial number of cases with which he is concerned are tried, standing counsel are appointed by the Attorney General to appear on his behalf. At the Central Criminal Court in London, for instance, there is a panel of counsel known as Treasury Counsel, who are retained to prosecute in the Director's cases.

Arrest

In criminal cases arrest may be effected either on a warrant issued by a judicial authority on information laid before it or, in certain cases, without a warrant. In the latter circumstances, a police officer may release the defendant on bail, that is to say, he may discharge him temporarily, subject to his entering into a recognisance, with

or without sureties, for a reasonable sum of money, to appear in court at the time appointed for the trial. Magistrates also have discretion to grant bail, and this discretion is liberally exercised in accordance with well-established principles. An arrested person must be charged at once with the offence of which he is suspected; the Judges Rules¹ forbid anything in the nature of cross-examination by the police once a charge has been preferred and if an arrested person wishes to make a statement he must first be cautioned that anything he says may be used in evidence. Unless the offence of which an arrested person is suspected is serious, he may be granted bail if he cannot be brought before the court within a day.

If anyone is detained in custody otherwise than upon lawful grounds² he (or, if he is unable, someone acting on his behalf) may sue out a writ of *habeas corpus* against the person who detained him, this person then being required to appear before the court on the day named to show cause for detention. The writ of *habeas corpus* may be granted by a single judge of the High Court but may be refused only by a Divisional Court of the Queen's Bench Division.

Trial

Most indictable offences (see p. 85) are tried in a superior court before a jury, although some may be dealt with in magistrates' courts, if the defendant consents. Conversely, a criminal case which would ordinarily be dealt with in a magistrates' court must usually be heard before a jury if the offence is punishable by more than three months' imprisonment and the defendant elects to be so tried.

Since criminal law presumes the innocence of the accused until his guilt has been conclusively proved, care is taken to deny to the prosecution any advantage, apparent or real, over the defence. Every accused person has the right to employ a legal adviser for the conduct of his defence and if he cannot afford to pay he may be granted legal aid at the public expense (see p. 98). Anyone remanded in custody may be visited in prison by his legal adviser. During the preparation of the case, it is customary for the prosecution to inform the defence of any relevant documents which it is not proposed to put in evidence and to disclose them if asked to do so.

All criminal trials are held in open court and the rules of evidence (which are concerned with the proof of facts and much the same in civil and criminal trials) are rigorously applied. For instance, although the uncorroborated evidence of one witness is, as a matter of English law, sufficient, conviction in criminal cases solely on the evidence of an accomplice (or accomplices) is, in practice, never allowed unless the judge has warned the jury of the danger of convicting without corroboration.

During the trial the accused has the right to hear and subsequently to cross-examine (normally through his counsel) all the witnesses for the prosecution; to call his own witnesses who, if they will not attend the trial of their own free will, may be 'subpoenaed', or legally compelled, to attend; and to address the court either in person or through his counsel. But he cannot himself be questioned unless he consents to be sworn as a witness in his own defence. The right to cross-examine the accused, even when he is so sworn, is limited by law, with the object of excluding inquiry into his character or into past offences not relevant to the particular charge on which he is

¹ These Rules, formulated in 1912 and at present under review by the judges, do not have the force of law but carry very great weight.

² These are: in pursuance of criminal justice; for contempt of court or of either House of Parliament; for civil debt; detention of persons found to be mentally disordered; detention of children by their parents or guardians. The writ of *habeas corpus* runs in both criminal and civil cases.

being tried. Furthermore, although confessions made in the course of previous judicial proceedings are admissible as evidence if they have been made upon oath, no confessions made in any other circumstances are admissible unless it can be proved that they were made voluntarily, i.e. without fear of prejudice or hope of advantage.

In criminal trials by jury it is, broadly speaking, the duty of the judge to determine questions of law, to sum up the evidence for the benefit of the jury, and to acquit the accused or pass sentence, according to the verdict of the jury; but the jury alone decides the issue of guilt or innocence. The verdict of a jury must be unanimous; if its members are unable to reach agreement, the case must be tried before a new jury.

If the jury returns a verdict of 'not guilty', the prosecution has no right of appeal and the defendant cannot be tried again for the same offence. If a defence of insanity is accepted by the jury the verdict will amount to an acquittal, but the accused will be detained in a suitable institution. From a verdict of 'guilty' there is a right of appeal on the part of the defendant to the appropriate court.

CIVIL LAW IN ENGLAND AND WALES

Civil Courts

The main courts of civil jurisdiction in England and Wales are the county courts, which are the courts for the lesser cases, and the High Court, where the more important cases are tried. Most appeals go to the Court of Appeal and from there may go to the House of Lords.

County Courts

County Courts (of which there are nearly 400) are so located that no part of a county is more than a reasonable distance from one of them. They are presided over by a paid judge, who almost always sits alone, although he may sit with a jury if either party wishes it and the court makes an order to that effect. There are 76 county court judges now in office, each having a circuit, which is either one court, or a group of courts, depending on the amount of work to be done. In districts where the pressure of business is exceptionally heavy the Lord Chancellor may, on representations made to him by the judge of the district, appoint a person (who must previously have held office as a judge or have been a barrister of at least seven years' standing) to act for the judge at any sitting of the court.

Generally speaking the jurisdiction of the county courts includes all civil actions where the amount claimed is not more than £400 or where, in actions for the recovery of land, the rateable value of the land is not more than £100 a year. Cases outside these limits may be tried in the county court by consent of the parties, or may be transferred to the High Court. Some actions, in particular actions for libel and slander, cannot be brought in the county court.

In addition to the ordinary county courts, there are still a few local courts with somewhat similar jurisdiction. Most of these are survivals from the medieval borough courts, and have little or no work to do at the present time, but the Liverpool Court of Passage, the Salford Hundred Court and the Mayor's and City of London Court are still well used.

The High Court of Justice

The High Court of Justice forms part of the Supreme Court of Judicature. Its jurisdiction is both original and appellate, and covers virtually all civil causes and some criminal causes.

The High Court is divided into the Chancery Division, the Probate, Divorce and Admiralty Division, and the Queen's Bench Division. The work is distributed between them in accordance with the Rules of Court (see p. 95) and the practice of the courts. Although the rules do not give exclusive jurisdiction in any matter to any one division, in practice each division has a separate field of jurisdiction and the judges are attached to a particular division.

The High Court is staffed by 52 puisne¹ judges. The Lord Chancellor is, in strict law, the president of the whole High Court (although, in practice, he does not sit in any Division); he is also nominally head of the Chancery Division, of which the Master of the Rolls² is another nominal member; there is a President for the Probate, Divorce and Admiralty Division; and the Lord Chief Justice of England presides over the Queen's Bench Division. For the hearing of cases at first instance, High Court judges sit singly. Appellate jurisdiction is exercised either by divisional courts consisting of three (or sometimes two) judges, sitting in one of the three Divisions of the High Court or, in some cases, by a single judge.

Appellate Courts

Nearly all appeals from magistrates' courts,³ ministerial decisions and the decisions of judges sitting in Chambers⁴ are heard in the first instance in the appropriate divisional court of the High Court, but all the more important appeals in civil actions come before the Court of Appeal, which is part of the Supreme Court of Judicature, and some (with leave of the Court of Appeal or of the House of Lords) before the House of Lords, which is the ultimate court of appeal in civil cases in the whole United Kingdom.

The Court of Appeal hears appeals from the High Court, the county courts and assizes in civil cases (see p. 85). The Lord Chancellor, the Lord Chief Justice, the President of the Probate, Divorce and Admiralty Division, the Lords of Appeal in Ordinary are all members of the court, but its effective head is the Master of the Rolls, who is assisted by eleven Lord Justices of Appeal, sitting in four divisions.

The judges in the House of Lords are the Lords of Appeal in Ordinary, who must have a quorum of three, but often sit as a group of five, and sometimes of seven. Lay peers may not attend the hearing of appeals (which normally takes place in a committee room and not in the legislative chamber), but peers who hold or have held high judicial office may sit. The president is the Lord Chancellor.

Civil Proceedings

In England and Wales civil proceedings are instituted by the aggrieved person; no preliminary inquiry as to the authenticity of the grievance is required. The most common form of proceedings is an action commenced by a writ served on the defendant by the plaintiff, which notifies the defendant that the plaintiff has a claim on him and states the nature of the claim. If the defendant intends to contest the claim, he 'enters an appearance' by informing the court to this effect and documents setting out the precise question in dispute (the pleadings) are then delivered to the court.

¹ Judges without any other special office.

² Originally keeper of the records and assistant to the Lord Chancellor, the Master of the Rolls has for centuries held high judicial office.

³ Quarter sessions have appellate jurisdiction in respect of some magistrates' courts decisions.

⁴ Decisions reached during proceedings which, under the rules of the court, do not require to be heard in court.

Because civil proceedings are a private matter, they can at any time be abandoned or compromised without leave of the court,¹ and in fact, in the great majority of cases, the parties to a dispute are able to settle their differences through their solicitors before the stage of actual trial is reached. Actions that are brought to court are usually tried by a judge without a jury, except in cases involving claims for defamation, false imprisonment, unlawful arrest, seduction, or breach of promise to marry, when either party may insist on trial by jury, or in a case of fraud, when the person charged may also claim this right. In trials where a jury is present, it is responsible for deciding questions of fact (as in criminal trials) and also the amount of damages to be awarded to the injured party.

Judgments in civil cases are enforceable through the authority of the court. Refusal to obey a judgment directing the defendant to do something or to abstain from doing something may result in imprisonment for contempt of court. Arrest under an order of committal may be effected only on a warrant of the court.

As a rule, the court awards the costs of an action (the solicitor's charges and essential disbursements) to the winning party, although in practice he always pays part of them. In certain circumstances (for instance, extravagance or negligence in the conduct of the case), the court may, in its discretion, refuse to order that one party's costs should be borne by the other.

CRIMINAL LAW IN SCOTLAND

Courts of Criminal Jurisdiction

Criminal cases in Scotland are heard either under solemn procedure, that is, where proceedings are taken on indictment and the judge sits with a jury, or under summary procedure, where the judge sits without a jury. All cases in the High Court of Justiciary and the more serious ones in the sheriff court are tried under solemn procedure. Proceedings are taken under summary procedure in the more minor cases in the sheriff court, and in the justice of the peace and burgh (or police) courts.

Burgh (or Police) Courts

These courts are established in burghs. The judges are town councillors who are serving (or have served) in the office of the magistrate of the burgh. In Glasgow a stipendiary magistrate acts as judge of one of the courts.

Justice of Peace Courts

These courts are organised on a county (and county of city) basis, the judges being the justices of the peace for the county (or county of city).

Any court of summary jurisdiction sits as a *juvenile court* when hearing charges only against persons under 17 years of age. Special justice of the peace juvenile courts have been established in three counties and in the city of Aberdeen.

The Sheriff Court

Scotland is divided into sheriffdoms, each consisting of a county or combination of counties, and these sheriffdoms are further divided into sheriff court districts. A sheriffdom has a sheriff and a number of sheriffs-substitute and these act as the judges of the court. The sheriff courts exercise an extensive civil jurisdiction, as well as a criminal jurisdiction.

¹ Matrimonial causes are exceptional in that all cases (whether defended or undefended) must come before a judge.

The High Court of Justiciary

The High Court of Justiciary is the supreme criminal court of first instance. Any one of the following judges is entitled to try cases in the High Court: the Lord Justice General (who is also the Lord President of the Court of Session), the Lord Justice Clerk, or any one of the thirteen Lords Commissioner of Justiciary who are also judges of the Court of Session. The seat of the court is in Edinburgh, but the judges go on circuit to preside at trials in other towns.

Criminal Appeals

A person convicted in the High Court or in a sheriff court on indictment may appeal to the High Court of Justiciary (a) against his conviction on any ground which involves a question of law alone, or, with leave of the High Court or upon the certificate of the judge who presided at the trial that it is a fit case for appeal, on any ground, and (b) against his sentence, with the leave of the High Court, unless the sentence is one fixed by law. Appeals are heard by three or more judges, and there is no further appeal to the House of Lords.

A person convicted summarily may appeal to the High Court, but only on questions of law and procedure, and not on issues of fact.

Proceedings Before Trial

Prosecutions

In Scotland the police make preliminary investigation of all cases of crime discovered by or made known to them, but it is for the Public Prosecutor concerned (the Lord Advocate in the High Court, the Procurators Fiscal in the sheriff court, and the justice of the peace fiscal and burgh prosecutor in the justice of the peace and burgh courts respectively) to decide whether or not to prosecute and, in the case of the Procurator Fiscal, to decide whether to proceed summarily or to charge the accused by Petition with a view to proceedings on indictment.

Arrest

The police in Scotland have the same powers of arrest as have the police in England and Wales. The Judges Rules do not apply in Scotland, but when an accused person is arrested, he should be cautioned and have the charge read over to him. Thereafter, only the accused's voluntary statements may be used in evidence at his trial, and the court will reject any statements made by him unless it is satisfied that they have been fairly obtained.

As in England and Wales, a person apprehended in Scotland must be brought before the court competent to deal with his case with the least possible delay. There is no equivalent in Scotland to the public preliminary investigation before examining magistrates held in England and Wales before committal for trial. Where a prosecution on indictment is contemplated, the accused is brought before a magistrate for judicial examination. The magistrate then commits the accused for trial, but he may first commit him for further examination. Eight days may elapse between commitment for further examination and commitment for trial.

Persons in custody, other than those charged with murder or treason, may be liberated on bail by the sheriff or, if the offence is within the jurisdiction of a summary court other than the sheriff court, by that court or the police. Even in the case of murder or treason, bail may be accepted at the discretion of the Lord Advocate or the High Court of Justiciary. There is a right of appeal to the High Court by the accused

person against the refusal of bail, by the prosecutor against the granting of bail, or by either party against the amount fixed.

The writ of *habeas corpus* does not apply in Scotland, but the High Court of Justiciary has power to release persons unlawfully detained and accused persons must, in any event, be brought to trial within 110 days of committal.

Trial

In trials on indictment, the first 'pleading' diet takes place in the sheriff court, when the accused is called upon to plead guilty or not guilty. If he pleads not guilty, the case is continued to the second 'trial' diet in the appropriate court. If he pleads guilty, and it is a case which is to be dealt with in the sheriff court, the sheriff may dispose of it at once. If it is a High Court case it is continued to the second diet in the High Court for disposal only.

The second diet is held at least nine days after the pleading diet, either before the sheriff or the High Court, with a jury. Evidence is led (without opening speeches) and there are closing speeches for the prosecution and for the defence, followed by the judge's charge to the jury. The jury may return a verdict of 'not guilty' or 'not proven', both of which result in acquittal, or they may find the accused 'guilty', in which case the court proceeds to the question of sentence. The verdict (unlike that of an English jury) may be by a majority. Fairness to the accused is ensured by the fact that, with a few minor exceptions, no person may be convicted without the evidence of at least two witnesses, or corroboration of one witness by facts and circumstances which clearly implicate the accused person in the crime.

At summary trials the accused is asked to plead to the charge at the first calling of the case and, if he pleads guilty, the court may dispose of the case. Where the plea is 'not guilty', the court may proceed to trial at once or it may appoint a trial diet for a later date.

CIVIL LAW IN SCOTLAND

Civil Courts

The main courts of civil jurisdiction in Scotland are the sheriff courts which, in their civil capacity, correspond roughly to the county courts in England and Wales, and the Court of Session, which is the supreme civil court in Scotland.

Sheriff Courts

The civil jurisdiction of the sheriff court extends to nearly all actions and is unlimited by the value of the case. Much of the work is done by the sheriff-substitute, against whose decisions an appeal may be made to the sheriff-principal or directly to the Court of Session. Minor civil matters (actions not exceeding £5 in value) may be tried by justices of the peace.

Sheriff courts in their civil capacity correspond roughly to county courts in England and Wales, but they have a wider jurisdiction unlimited by the value of the case.

The Court of Session

The Court of Session has universal jurisdiction, sits only in Edinburgh, and has sole jurisdiction, *inter alia*, in divorce actions. The court is divided into two parts: the Outer House, a court of first instance, and the Inner House which is mainly an appeal court. The Inner House is divided into two divisions of equal status, each consisting of four judges—the first division being presided over by the Lord President and the second division by the Lord Justice Clerk. From the Inner House an appeal may lie to the House of Lords.

The Scottish Land Court

The Scottish Land Court is a special court that deals with certain agricultural matters. The court is presided over by a legal chairman, who has the rank and dignity of a judge of the Court of Session.

Civil Proceedings

In Scotland civil proceedings are initiated by the service on the defender of a writ or summons, which sets out the nature of the decree which the pursuer seeks, a statement of facts upon which the pursuer founds his claim, and a statement of the legal propositions upon which the pursuer maintains he is entitled to the remedy which he seeks. In Court of Session actions the next step is the calling of the summons, which is the publication of the action in the court lists. If the defender intends to defend the action, he must 'enter appearance' within two days of calling and thereafter lodge defences to it. In the sheriff court 'entering appearance' precedes the 'tabling' of the case. It is much more common in Scotland than in England and Wales to have legal debates in court as to the competency or relevancy of the written pleadings prior to the proof.

In Scotland a pursuer can abandon his case, including any matrimonial case, at any time, but where abandonment is sought after the commencement of the proof or trial, only with leave of the court. Trial by jury in civil action in Scotland is much more common than in England and Wales, being the usual form of proof in actions for damages for personal injuries.

COURTS IN NORTHERN IRELAND

Both civil and criminal courts in Northern Ireland are similar to those in England and Wales with some minor modifications to suit a smaller community. The superior courts comprise the Supreme Court of Judicature (consisting of the High Court of Justice and the Court of Appeal) and the Court of Criminal Appeal. The High Court is the superior court of first instance, is divided into the Chancery Division, the Queen's Bench Division (including probate, matrimonial and Admiralty proceedings) and the circuit courts (assizes) and is constituted of the Lord Chief Justice, as president, and two judges. The Court of Appeal, which is the appellate tribunal, is constituted of the Lord Chief Justice and two Lords Justices of Appeal.

The inferior courts are the county courts and courts of summary jurisdiction (petty sessions). Courts of quarter sessions have been amalgamated with the county courts, which now exercise both civil and criminal jurisdiction and are presided over by county court judges, of whom there are five (two of them having the title of Recorder—of Belfast and of Londonderry). At least four sittings of the court are held annually in each division. Petty sessions courts are composed of one resident magistrate (who corresponds to a stipendiary magistrate in England and Wales) who sits alone except in some specific cases, for instance in a special crimes court, where two may adjudicate. Juvenile courts are composed of one resident magistrate and two lay members, one of whom must be a woman.

SPECIAL COURTS

Coroners' Courts

Coroners' courts are common law courts convened when a person appears to have died a violent or unnatural death or a sudden death of which the cause is unknown, and

in certain other circumstances. In such cases, it is the duty of the local coroner (who may be a barrister, a solicitor, or a medical practitioner of not less than five years' standing, appointed by a county or a county borough council) to hold an inquiry into how, when, and where the deceased died; he may hold an inquest in court for this purpose, and he must do so if he has reasonable cause to believe that the deceased has died a violent or unnatural death or has died in prison or in circumstances for which an Act of Parliament provides that an inquest must be held. A jury must be summoned in certain cases, including those in which there is reason to suspect that the death was due to murder, manslaughter, or infanticide, or was caused by an accident arising out of the use of a vehicle on the public highway. If the jury returns a verdict of murder, manslaughter or infanticide by a particular person, the coroner must commit that person for trial at assizes. If the death is merely a sudden death of which the cause is unknown, the coroner need not hold an inquest, but may order a post-mortem examination to ascertain the cause of death.

In Scotland the office of coroner does not exist. The Procurator Fiscal inquires privately into all sudden and suspicious deaths in his district and may report the result of his inquiries to the Crown Agent in order that Crown Counsel may consider what proceedings, if any, are required.

Administrative Tribunals

Administrative tribunals consist of persons or bodies exercising judicial or quasi-judicial functions outside the ordinary hierarchy of the courts. As a rule, they are set up by Act of Parliament or under powers conferred by statute, which also govern their constitution, functions and procedure.

The continuing expansion of governmental activity and responsibility for the general well-being of the community has greatly multiplied the occasions on which the individual may find himself at issue with the administration, or with another body of persons or an individual; consequently there has been a substantial growth in the number of tribunals (there are over 2,000 in existence) and in the range of their activities during the past fifteen years. Their constitution follows a fairly general pattern: all, for instance, consist of an uneven number of persons so that a majority decision can be reached; members are usually appointed by the minister concerned with the subject but other authorities (for instance, the Crown, the Lord Chancellor and the Master of the Rolls) have the power of appointment in appropriate cases and the Lord Chancellor, or the Lord President of the Court of Session in Scotland, makes appointments in all cases where a lawyer chairman or member is required; and, with some exceptions, members of tribunals hold office for a period specified in the warrant or instrument by which they are appointed.

Administrative tribunals may be broadly classified as follows:

- (i) those which have permanent members appointed for their special knowledge, and a chairman who must be a lawyer of experience: for instance, the *Transport Tribunal*, which has jurisdiction over fares and rates charged by the British Transport Commission (see p. 369) and the *Lands Tribunal*, which has jurisdiction in a variety of matters relating to the value of property;
- (ii) those which are purely administrative: for instance, the *Special Commissioners of Income Tax*, who hear appeals on income tax matters from the rulings of the Inland Revenue officials;
- (iii) those which deal exclusively with matters of interest to one Government

department or public authority: for instance, the *Pensions Appeal Tribunals*, which hear appeals against the rejection by the Minister of Pensions and National Insurance of war service pension claims; and

- (iv) those which consist of ordinary people appointed by a minister to arbitrate between individuals: for instance, the *Rent Tribunals*, which have jurisdiction in the determination of rents of certain properties.

There are also tribunals which enforce professional discipline, such as the General Medical Council and the Disciplinary Committee of the Law Society, but these are entirely different in constitution from the statutory tribunals and are of no concern to the general public.

There is no general provision respecting appeals from statutory tribunals. Where appeals exist, they may lie to a specially constituted appeal tribunal; to a Minister of the Crown; to an independent referee; or, either fully or on a point of law, to a divisional court of the appropriate High Court Division. An advisory body known as the Council on Tribunals (appointed jointly by the Lord Chancellor and the Secretary of State for Scotland) exercises general supervision¹ over the tribunals and reports on particular matters, those peculiar to Scotland being dealt with by the Scottish committee of the Council.

Military Courts

Generally speaking, courts martial have jurisdiction over serving members of the armed forces in connection with the system of military law enforceable under provisions of the Army Act and Naval Discipline Act. (Non-military offences committed by members of the armed forces are dealt with in the ordinary criminal courts.) A military or air force court martial may be convened by any officer authorised to do so; a naval court martial may be ordered either by the Admiralty or by any authorised officer.

At every general court martial, and in important cases at district courts martial, an officer, known as a judge advocate, must be present to advise the court upon law and procedure and ensure that the accused is afforded a fair trial. The Judge Advocate General's Department acts for the Air Force as well as the Army, but the Navy has a separate Judge Advocate of the Fleet.

Appeals lie to the Courts-Martial Appeals Court, and from that court to the House of Lords if the court certifies that a point of law of general public importance is involved and it appears to the court or the House of Lords that the point is one that ought to be considered by the House.

ADMINISTRATION OF JUSTICE

There is no Minister of Justice in the United Kingdom. Responsibility for the administration of the judicial system in England and Wales, when it does not rest with the courts themselves, lies partly with the Lord Chancellor and partly with the Home Secretary. The former is concerned with the composition of all courts, both criminal and civil, with parts of criminal procedure and with everything relating to civil law, and the latter with criminal law, preventing offences, apprehending offenders, part of the process of trying them, and virtually the whole of their treatment. The Prime Minister is also concerned in that he is responsible for recommending to the Crown the highest judicial appointments (see p. 45).

¹ Excluding supervision of the professional disciplinary tribunals.

The administrative business of the Supreme Court of Judicature and the appointment of the officers of the court (for instance, the masters, registrars and clerks) is partly in the hands of the Lord Chancellor and partly in the hands of the appropriate judges. The Lord Chancellor is concerned with legal procedure in that he is a member of the Rule Committee which makes the rules of the Supreme Court, appoints the County Court Rule Committee and has power to alter or disallow the rules made by it. He is concerned with law reform in that he refers questions on this subject (save in the field of criminal law, where the Home Secretary is primarily responsible) to the Law Reform Committee and the Private International Law Committee, and that the reports of these committees, which often become the basis of legislation, are presented to him.

Magistrates' courts are mainly administered by the magistrates themselves, chiefly through committees known as magistrates' courts committees; but the local authorities, with financial assistance from the government, are responsible for meeting their costs, and the Home Secretary, besides exercising a general oversight, has certain specific responsibilities, including the approval of boundary changes, approval of the appointment of justices' clerks, and deciding disputes on financial matters.

In Scotland the High Court of Justiciary and the Court of Session are administered by the Clerk of the Justiciary and his staff and the principal Clerk of Session and his staff respectively. The Secretary of State for Scotland is responsible for the staffing and general organisation of the sheriff courts.

In Northern Ireland the administration of the superior courts has been reserved to the United Kingdom Parliament. The judges are appointed by the Crown and are removable only on an address of both Houses of that Parliament. The Minister of Home Affairs for Northern Ireland is responsible for the staffing and general organisation of the county and petty sessions courts; the judges of the county court and resident magistrates are appointed by the Governor of Northern Ireland.

THE PERSONNEL OF THE LAW

The administration of the law requires the co-operation of judges with whom, aided in certain cases by juries, the decision of disputed cases rests; of the officers of the court, who have general or specialised functions of an administrative (and sometimes of a judicial) nature in the courts to which they are attached; and of the barristers (advocates in Scotland) and solicitors who are entrusted with representing the interests of the parties to a dispute.¹

Judges

All judicial officers, from those of the House of Lords and the superior courts to the stipendiary magistrates and justices of the peace, are independent of both the legislature and the executive. Under existing law, they are free to administer the law without fear or favour; although the courts of the United Kingdom are the Queen's Courts (since the Crown is the historic source of judicial, as of executive power), it has been established since the end of the seventeenth century that the executive cannot disturb or delay the course of common justice, or attempt to force the judges to act otherwise than impartially.

The Crown, acting on the advice of ministers, is responsible for all appointments

¹ The law allows full liberty to the individual to conduct his own case, both in its initial and final stages, if he thinks fit. The more usual practice, however, is to be legally represented.

to the judiciary. In England and Wales appointments to the highest positions—the Lords of Appeal in Ordinary, the Lord Chief Justice, the Master of the Rolls, and the President of the Probate, Divorce and Admiralty Division—are made on the recommendation of the Prime Minister, while the Lord Chancellor recommends the appointment of the puisne judges, the county court judges (except in Lancashire where they are nominated by the Chancellor of the Duchy of Lancaster), the chairmen of quarter sessions, the recorders of boroughs, and the metropolitan and other stipendiary magistrates. Justices of the peace are appointed on behalf of the Crown by the Lord Chancellor,¹ who is advised, as to a county by the Lord Lieutenant² with the assistance of a local advisory committee, and as to the boroughs by separate advisory committees.

In Scotland the Prime Minister makes recommendations for the appointment of the Lord Justice General and Lord President and also of the Lord Justice Clerk. Power of submission for appointment of all other judges lies with the Secretary of State for Scotland. The Secretary of State is responsible for the appointment and removal of justices of the peace.

Judges are not engaged in politics, except in the case of the Lord Chancellor who, as well as being head of the judiciary, is a leading member of the Government in power. With the exception of justices of the peace, judges have always been appointed from practising barristers or advocates and neither their training nor their career is in any way influenced by the State.

Once appointed, judges normally hold office for life or until statutory retiring age. However, in certain circumstances (for instance, in cases of misconduct or proven incapacity) judges of the inferior courts in England and Wales may be removed from their position by the Lord Chancellor. In Scotland the Secretary of State may issue an order for the removal from office of a sheriff-principal on a report prepared by the Lord President of the Court of Session and the Lord Justice Clerk, on the grounds of inability, neglect of duty or misbehaviour, but this order is required to lie before both Houses of Parliament for a period of four weeks. A sheriff-substitute may similarly be removed from office, but in his case no parliamentary procedure is necessary.

In England and Wales all superior judges (other than the Lord Chancellor who, as a Cabinet Minister, changes with the Government) are subject to a power of removal only by the Sovereign on an address presented by both Houses of Parliament.³ Since 1701 only one such address has been moved (against a judge convicted of misappropriation of funds, in 1830); and it can be stated with confidence that Parliament would never use this means to attempt to interfere with judicial independence. Similarly, although no court in the United Kingdom would ever question the validity of an Act of Parliament which had been legally promulgated and published it might, through its interpretation of the statute, come to a decision contrary to the policy of the Government which introduced the Act. In such a case it would be open to the Government to persuade Parliament to clarify or amend the statute by new legislation. It would not be open to it to penalise the judge or to try to influence the court in any other way.

¹ Except in Lancashire, where the Chancellor of the Duchy acts on behalf of the Crown in this matter.

² The office of the Lord Lieutenant of the county was first created in the sixteenth century. Its holder was chief among the county justices and commander of the county militia.

³ There is no statutory provision for removal of judges of the Court of Session or High Court of Justiciary from office and it is probable that special legislation would be required to effect such a dismissal.

Juries

A jury in England and Wales consists of twelve persons duly summoned by the court. In Scotland the jury consists of fifteen persons in criminal cases and twelve in civil cases and in Northern Ireland of twelve in criminal and seven in civil cases. Most householders (men and women alike) are liable for jury service if they are British subjects over the age of 21, but persons following certain occupations can claim exemption. A jury is completely independent of both the judiciary and the executive. In criminal cases the accused can have a number of jurors changed without giving reasons and both defence and prosecution can object for cause shown (for instance, lack of impartiality), but once members of the jury have been sworn, they are protected from interference of any kind. It is an offence to assault, threaten or attempt to corrupt a jurymen either before or during a trial.

At certain inquests at coroners' courts (see p. 92) in England and Wales and Northern Ireland, a jury is required to be present to return a verdict on how, when and where a deceased person died. The jury in this instance consists of from seven to eleven jurors. A jury is also required at an inquest held by a coroner to decide whether objects of gold or silver found in the ground are 'treasure trove'.

The Legal Profession

The legal profession is divided into two branches: barristers (advocates in Scotland) and solicitors. Each performs distinct duties—solicitors undertake legal business for lay clients, while barristers advise on legal problems submitted through solicitors and conduct proceedings in the higher courts—though certain functions are common to them both.

A barrister in England is required to have reached an accepted educational standard, to have passed the legal examinations conducted by the Council of Legal Education and to have become a member of one of the four Inns of Court—Gray's Inn, Lincoln's Inn, the Middle Temple and the Inner Temple. A barrister with a substantial junior practice may apply to the Lord Chancellor for a patent appointing him Queen's Counsel—a proceeding that is known as 'taking silk'. Most of the higher judicial appointments are made from among barristers who have become Queen's Counsel. The professional conduct of a barrister is subject to the scrutiny of the General Council of the Bar; but disciplinary powers are vested exclusively in the Benchers of the Inns of Court.

A prospective solicitor in England and Wales must be considered suitable by the appropriate committee of the Law Society (the professional organisation of solicitors) and he must enter into 'articles of clerkship' with a practising solicitor of not less than five years' standing before he can begin his professional career. The term of articles lasts for three or five years, depending upon the educational qualifications of the student. An articulated clerk must pass the necessary examinations held by the Law Society and, unless he has been a barrister or is a law graduate of a university, he is generally required to attend a course of studies at a recognised law school. Once a solicitor is qualified, he may become a member of the Law Society.

In Scotland an advocate requires to have an arts degree or its equivalent. The conditions applying for the admission of solicitors are similar to those applying in England and Wales. The analogous professional organisations are the Faculty of Advocates and the Law Society of Scotland.

In Northern Ireland barristers are members of the Inn of Court of Northern Ireland; there is also a General Council of the Bar of Northern Ireland. The pro-

fessional organisation for solicitors is the Incorporated Law Society of Northern Ireland.

LEGAL AID AND ADVICE

Schemes for free legal assistance to persons of slender means and resources have existed for centuries in some courts—to a limited extent in England and Wales, and to a somewhat greater extent in Scotland. The Legal Aid and Advice Act, 1949, and the corresponding Legal Aid (Scotland) Act, 1949, were introduced to improve existing arrangements in civil proceedings so that no one would be financially unable to prosecute a just and reasonable claim or to defend a legal right, and also to make the facilities already available in criminal proceedings more easily accessible to those who needed them.

Owing to the financial situation at the time, the 1949 Acts could not be fully implemented and, at first, only those clauses relating to legal aid in civil proceedings before the High Court and the Court of Appeal in England and Wales, and before the Court of Session and the sheriff courts in Scotland, were brought into force. The scheme is still not in full operation but, in England and Wales, legal aid has now been made available for appeals to the House of Lords, for civil cases in county courts and for certain civil proceedings (mainly in connection with matrimonial and affiliation matters) in magistrates' courts and courts of quarter session. The sections in both the English and Scottish Acts providing for legal aid in matters not involving litigation and for oral legal advice have also come into force.

Legal Aid in Civil Cases

Free legal aid in civil cases is available to persons with very small incomes and capital, and contributory legal aid to those in slightly higher income and capital groups.

The legal aid scheme in England and Wales is run by the Law Society under the general guidance of the Lord Chancellor. It is operated by 12 area committees and a network of local committees composed of barristers and solicitors (who may be paid a fee), with a salaried staff. The cost is met from the Legal Aid Fund, drawn from three sources: contributions from assisted persons; costs recovered from opposite parties in litigation; and a grant from the Exchequer.

Applicants for free legal aid must show that they have reasonable grounds for asserting or disputing a claim. A successful applicant is allowed to select from a panel a solicitor who, if necessary, instructs a barrister, and the case is then conducted in the ordinary way. Certain types of action, including libel and slander, are excluded from the scheme.

In Scotland the legal aid scheme is administered by the Law Society of Scotland through a supervisory central committee, the Supreme Court committee and sixteen local committees. An applicant is required to show 'probable cause' and produce in support of his application a statement corroborated according to the requirements of Scottish law. Assistance is available in connection with appeals to the House of Lords from the Court of Session, in civil proceedings before the Court of Session and the sheriff courts and in matters not involving litigation.

Legal Aid in Criminal Courts

Free legal aid is available in the criminal courts in England and Wales under the Poor Prisoners' Defence Act, 1930, which provides for the granting of either a legal aid certificate which entitles the recipient to the services of a solicitor (or, in the case of a preliminary inquiry into a charge of murder, of a solicitor and counsel) in defending

a charge heard summarily or at committal proceedings in indictable cases, or a defence certificate which provides both solicitor and counsel in a trial on indictment. The granting of these certificates is in the discretion of the justices or judge before whom the applicant is to be tried, except in the case of a person committed for trial on a charge of murder, when a defence certificate must be granted if the defendant has insufficient means.

Free legal aid for an appeal to quarter sessions is provided for in the Summary Jurisdiction (Appeals) Act, 1933, which lays down that, in proper cases, an appeal aid certificate may be granted by a magistrates' court or quarter sessions. The granting of legal aid in appeals to the Court of Criminal Appeal rests with a judge of that court who may also grant legal aid for the purposes of a further appeal to the House of Lords.

The cost of legal aid in magistrates' courts is paid out of the Legal Aid Fund. In the higher courts payments are made in the first instance out of local authority funds and the cost is reimbursed by the central government.

Pending the full implementation of the Legal Aid and Solicitors (Scotland) Act, there is no provision for legal aid in criminal cases in Scotland, but a 'Poor's Roll' exists to provide a legal defence, free of charge, for those in need.

Legal Advice

Oral advice on legal matters is available, both in England and Wales and in Scotland, free of charge to persons in receipt of national assistance and at a very reasonable cost, i.e. at 2s. 6d. for an interview of up to thirty minutes, to those of limited means. Advice is given by practising solicitors paid out of the legal aid funds of the two countries. The scheme is administered by the two Law Societies, which also run voluntary schemes (for a fee of £1) for those who do not qualify for statutory assistance.

Legal Aid in Northern Ireland

In Northern Ireland free legal aid in criminal cases is afforded to poor persons under the Criminal Justice (Northern Ireland) Act, 1945, the cost being met from public funds.

Legislation providing for a comprehensive system of legal assistance (covering legal advice, preliminary legal aid and legal aid by way of representation by solicitor and counsel in all courts and tribunals) to persons within the income and capital ranges specified in the Legal Aid Act, 1960, has been recommended in a majority report of a committee appointed by the Northern Ireland Minister of Home Affairs.

TREATMENT OF OFFENDERS

The chief aims of the penal system of the United Kingdom are to deter the potential law-breaker and to reform the convicted offender. The element of deterrence lies in the fear of detection, public trial, and possibility of punishment rather than in the severity of the punishment itself. The treatment of offenders today is based increasingly on the recognition that the community has a responsibility not simply to punish or reject the law-breaker but to prevent him from returning to crime.

Penalties

Except in relation to murder and certain rare offences for which there is a fixed penalty, the court has discretion to select the penalty (within maxima prescribed by law) that it considers most suitable in the light of the circumstances of the offence and the offender. In general, the courts have power to impose either imprisonment

or a fine for serious offences (both in certain cases); while most minor offences are punishable by a fine only, with the alternative of imprisonment if the fine is not paid. Moreover, the court has discretion, instead of sentencing an offender, to discharge him absolutely, to place him on probation or (in England and Wales only) to discharge him conditionally (i.e. subject to the condition that he commits no offence during a specified period not exceeding twelve months). There are special provisions governing the treatment of young offenders: for instance, the Criminal Justice Act, 1961, provides for the eventual abolition (in England and Wales) of sentences of imprisonment of less than three years (or less than eighteen months in the case of persistent offenders) for persons under 21 years old. Summary courts are subject to a similar restriction in sentencing adult first offenders to imprisonment.

Two special types of treatment—corrective training and preventive detention—have been devised to deal with the persistent offender. The purpose of a sentence of corrective training is to enable training to be given to a prisoner whom the court considers to be in need of it, and it is designed to stop his criminal tendencies and encourage him to become a responsible citizen. The range of the corrective training sentence is from two to four years (seven years in Northern Ireland). A sentence of preventive detention, which is primarily for the protection of the public in those cases where the offender has a long record of previous offences and whose response to previous institutional training has been unsatisfactory, runs for not less than five years (three in Northern Ireland) or more than 14 years, as the court decides.

Since 1957 the death penalty in Great Britain for murder has been limited to murders classified as 'capital murder'. These are not necessarily the type of murder regarded as the most wicked, but are those which strike especially at the maintenance of law and order and on which the deterrent effect of capital punishment is believed to be most likely to operate, i.e. murder done in the course or furtherance of theft, murder by shooting or by causing an explosion, murder committed to escape lawful arrest or to effect or assist escape or rescue from legal custody, murder of a police officer (or person assisting him) acting in the execution of his duty, or murder by a prisoner of a prison officer (or person assisting him) acting in the execution of his duty. The penalty for murder not in capital categories is imprisonment for life, except that the death penalty continues to apply where a person who is convicted of murder has previously been convicted of another murder committed in Great Britain on a different occasion. Murderers under the age of 18 years at the time that the crime was committed are not sentenced to death or to life imprisonment, but 'to be detained during Her Majesty's pleasure'. If it can be proved that a person accused of murder was suffering from such abnormality of mind as substantially impaired his mental responsibility at the time he committed the murder, he is entitled to be convicted of the lesser offence of manslaughter.

It is the long-established practice for the Home Secretary or the Secretary of State for Scotland to review every capital case before the law is allowed to take its course and to consider whether there are grounds for advising the Crown to exercise the prerogative of mercy. Where a reprieve is recommended, the sentence of death is commuted to one of imprisonment for life. A person subject to a sentence of life imprisonment is liable to be detained for the rest of his life, but the Home Secretary may, if he thinks fit, release him on licence at any time. In recent years, the average period served by persons whose death sentences have been commuted has been about nine years, but the period varies according to the circumstances of the particular case and the question of whether the prisoner's discharge would be likely to involve risk to the public.

The Homicide Act, 1957, is not applicable to Northern Ireland where sentence of death is passed in all cases of murder. The exercise of the prerogative of mercy in such cases is considered by the Northern Ireland Cabinet, which tenders advice to the Governor in his capacity as representative of the Crown.

Administrative Authorities

In England and Wales the Home Secretary is the minister generally responsible for legislation relating to the treatment of offenders, for collecting statistical and other information about the operation of the penal system, for reviewing the advantages and defects of the various methods of treating offenders, and for bringing information about these methods to the attention of the courts. He is specifically responsible for supervising the approved schools, for promoting the efficiency of the probation service, and for providing, maintaining and managing prisons and borstal institutions.

The Home Secretary is advised in the discharge of his duties as the central authority for all questions relating to the treatment of offenders by the Advisory Council for the Treatment of Offenders, which also acts as the National Working Party Group for the Economic and Social Council of the United Nations, and as the National Committee of the International Penal and Penitentiary Commission.

The general supervision of penal institutions is the responsibility of visiting committees, appointed by the justices, for those prisons to which convicted persons are committed direct from their courts, or of boards of visitors, appointed by the Home Secretary, for the other prisons and institutions. The main functions of the committees and boards are: to act as the superior disciplinary authority of the prison or institution; to constitute an independent judicial body to which any prisoner or inmate may make a complaint or request; and to report direct to the Home Secretary, both by formal annual report and as occasion may require, on every aspect of the administration of the prison. In borstal institutions and central prisons for prisoners sentenced to preventive detention, the boards also advise on the release on licence of the inmates.

The penal systems in Scotland and Northern Ireland are based on principles similar to those applied in England and Wales. The Secretary of State for Scotland is advised in the discharge of his duties by the Scottish Advisory Council on the Treatment of Offenders. In Northern Ireland the system is the responsibility of the Ministry for Home Affairs.

Prisons

The rising trend in the total number of indictable offences known to the police has led to severe overcrowding in prisons and has strained the resources of other agencies, such as borstals, approved schools and the probation service. Measures to deal with the problems include plans for a substantial increase in the number of prisons and the other institutions mentioned above, and the reconstruction or replacement of a number of old prisons.

Prisons in England and Wales are of the following types: local prisons of the ordinary type, which receive all classes of prisoners direct from the courts; local prisons of a special type, which may be open or walled, for short-sentence prisoners, chiefly first offenders; young prisoners' centres for the reception of youths under 21 years of age with sentences of three months or over, as far as accommodation permits; regional training prisons (some of which are open) for first offenders and trainable prisoners of other categories, including those sentenced to corrective training; and central prisons for habitual law-breakers, prisoners sentenced to preventive detention and long-term first offenders—one for the latter class is an open prison.



The Scottish system of classification of prisoners is broadly the same as that of England and Wales; but each prison in Scotland, except the open prison, accommodates more than one classification group. In Northern Ireland, with its smaller population, the necessity for several kinds of prison to separate the various classes of prisoners does not arise to the same extent.

Classification of Prisoners

Every person committed to prison is received in the local prison serving the court from which he is committed. Subsequently, he may either serve his whole sentence at the local prison or be sent to another institution, depending on his age, the length and nature of his sentence, and his personal history and character.

The object of classification is first to ensure the separation of the sexes, of young persons from adults, of untried prisoners from convicted prisoners and of civil prisoners from criminal prisoners; secondly, to prevent contamination, among convicted prisoners, of the better by the worse; and thirdly, to provide training appropriate to their needs for those among convicted prisoners who seem likely to benefit therefrom.

Training

In prison training, efforts are being made to provide (1) work of a kind likely to help fit prisoners to earn their living after release, with technical training in skilled trades for certain persons, (2) suitable educational facilities, and (3) opportunities for the development of a sense of personal responsibility, including (for suitable persons) training in open conditions. A system of vocational training courses in skilled trades, designed to enable the trainees to take the examinations of recognised examining bodies, is being developed in central and training prisons.

Employment

New problems in the organisation and management of industries in prisons have arisen as the result of changes that have taken place both in industrial methods and in the prison system during the past thirty years, and because of the substantial increase in the number of prison inmates for whom employment must be found. The whole subject is therefore being studied by a standing Advisory Council on the Employment of Prisoners, appointed by the Home Secretary and the Secretary of State for Scotland. The Council has so far made two reports: the first deals with work for prisoners, including suitable kinds of work, job training and earnings; the second deals with the employment and industrial training of borstal inmates.

Except in local prisons in England and Wales, where the hours are shorter, most prisoners spend about 40 hours a week in the prison workshops or in other employment such as building, farm work, domestic work and gardening in the prison precincts. A few prisoners are employed outside the prisons on various projects of public value, such as agriculture, land drainage, road works and forestry.

In England, Wales, and Scotland, small payments are made to inmates for the work they do, and good work is rewarded by payments above the minimum; in Northern Ireland there is a progressive system of earnings, which is not related to output nor to work done.

Education

Educational schemes are provided in prisons in England, Wales, and Scotland by the local education authorities with the advice of the Government departments responsible for education in their respective countries, and in Northern Ireland by the Ministry of Home Affairs. In England and Wales the local authorities also provide

tutor organisers and most of the instructors; in all cases the full cost of their services is reimbursed. Evening classes and a wide range of correspondence courses are available for those who have a serious desire to improve their education and qualifications.

Educational schemes are supplemented by periodical lectures, film displays, concerts, and dramatic performances. Prisoners may also use the prison library, which in most cases is now stocked by the county, city or borough library committee.

Medical Services

Medical attention is provided by full-time and part-time medical officers whose duties include not only the care of the physical and mental health of prison inmates, but also the oversight of those services which affect health in prisons.

A few prisons and borstals have their own psychiatric clinics (with qualified medical staff, visiting psychotherapists and psychiatric social workers) to which inmates may be transferred where necessary. The hospital facilities of the National Health Service (see Chapter 5) are also available for the treatment of inmates in appropriate cases. Arrangements may be made for prisoners serving short-term sentences to receive treatment after release. In England and Wales a new psychiatric prison for the treatment of abnormal and unusual types of inmates, with accommodation for 350 people, was opened in 1962. There is also a psychological service for prisons in England and Wales, whose officers are employed to assist governors and medical officers in their work of examining and classifying prisoners, and to advise on methods of treatment.

Religion and Welfare

A chaplain of the Church of England (in Scotland, of the Church of Scotland and in Northern Ireland, of the Church of Ireland and Presbyterian Church) and a Roman Catholic priest are appointed to every prison. Ministers of the Methodist Church and of other denominations are either appointed or specially called in as required. Regular services are held, and chaplains and other ministers may visit prisoners in their cells.

Welfare is the general concern of the prison staff, particularly of the chaplains and assistant governors but all prisons have resident or visiting welfare officers.

Prisoners may be visited by their relatives and friends at specified intervals and by prison visitors specially appointed for the purpose. The voluntary work of prison visitors is co-ordinated and guided by the National Association of Prison Visitors.

Privileges and Discipline

On reception under sentence, all prisoners, except those sentenced to preventive detention or to imprisonment for life, are credited with remission of one-third of their sentence (one-fourth in Northern Ireland in respect of sentences of less than two years), provided that this does not reduce their sentence below 31 days (in Scotland, 30 days). A prisoner sentenced to preventive detention becomes eligible for release on licence after serving two-thirds or five-sixths of his sentence (in Northern Ireland, two years, or one-half of his sentence, whichever is greater) according to an assessment of his character, conduct and prospects, which is made after he has served a substantial part of his sentence and a life prisoner may be released on licence by the Home Secretary (see p. 100). All prisoners become entitled to certain personal privileges at successive stages in their sentence.

For breaches of discipline in prison, the prison governor, the visiting committee or the board of visitors have power to order forfeiture of remission (or postponement of the date of release) and forfeiture of privileges.

Discharge and After-Care

Pre-release courses, at which experts hold open forum with prisoners nearing their release on the domestic, social and industrial problems with which they are likely to be faced, are conducted at all prisons in England and Wales. Specially selected men amongst those sentenced to preventive detention, long-term imprisonment and, in Scotland, corrective training are allowed to work, as free men, in ordinary civilian jobs outside prison during the months immediately preceding their discharge; hostels for this purpose have been established at several prisons. Home leave, allowing five clear days at home, is extensively granted to many categories of prisoners with sentences of two years or over towards the end of their sentences to enable them to make family adjustments and contacts with potential employers.

On discharge from local or regional prisons, certain classes of prisoners serving sentences of less than four years (three years in the case of most women) are assisted by local discharged prisoners' aid societies (voluntary bodies supported partly by private and partly by public funds) or by the National Association of Discharged Prisoners' Aid Societies (a central co-ordinating body, maintained by grants from public funds for its administrative expenses). The local societies are advised by prison welfare officers, employed by the National Association, who work at the prisons. In Scotland the prison welfare officers are employed by the Scottish Home Department. The National Association is also responsible for welfare and after-care arrangements at regional training prisons and special local prisons.

Statutory supervision in England and Wales applies, generally speaking, to persistent offenders and those serving sentences of four years or more, to young prisoners, and persons discharged from borstals. The sanctions for failure to observe the conditions of supervision are recall to prison or borstal. Statutory supervision is the responsibility of the Central After-Care Association, a voluntary body financed from public funds and governed by a council appointed by the Home Secretary, which includes in its membership representatives of the Ministry of Labour, of the National Assistance Board and of the probation service. The After-Care Council, appointed by the Secretary of State for Scotland, carries out similar duties in Scotland.

The Central After-Care Association works through local associates, usually probation officers, and the National Association also works through the after-care officers of local aid societies. The After-Care Council in Scotland uses the services of voluntary guardians. The officers of the local organisations make all arrangements for the reception of the prisoner after his discharge, and will advise, assist and befriend him for as long as is necessary, or as required by statute.

In Northern Ireland the after-care of all prisoners is carried out by the discharged prisoners' aid societies with the help of probation officers.

Treatment of Young Offenders

Under the English and Scottish legal systems, a child under the age of eight cannot be charged with an offence. A child between eight and 14 years old, who is charged with an offence other than homicide, must be dealt with in a juvenile court unless charged jointly with an adult.

In England and Wales a young person between 14 and 17 years of age charged with an indictable offence may be dealt with summarily (as is usually the case) or committed for trial by jury. In certain cases young persons may claim to be tried by jury, though this right is rarely exercised. In Scotland and Northern Ireland all young persons up to the age of 17 years who are charged with offences must be dealt with in juvenile courts, unless they have been charged in conjunction with adult offenders.

The following methods of treatment are available in law for dealing with children and young persons who have been found guilty of committing an offence: absolute discharge; conditional discharge (in England and Wales only); fines imposed upon the offender or, in certain circumstances, upon his parents; probation; committal to the care of a fit person (normally the appropriate local authority) until the age of 18; or a period of detention in one of the different types of institution which are available when institutional treatment is considered necessary. In Scotland, and under the Criminal Justice Act, 1961, in England and Wales, no young person under the age of 17 may be sentenced to imprisonment.

Remand

In England, Wales and Scotland remand homes are provided by local authorities for the custody of boys and girls under the age of 17 before their appearance in court, or between court appearances (while inquiries are made as to the best method of treatment for them), while they are awaiting vacancies in approved schools, or for a short period (up to a month) of punitive detention. In Northern Ireland the responsibility for providing or arranging for the provision of remand homes rests with the Ministry of Home Affairs.

In addition to remand homes, remand centres are being established in England and Wales (and are planned for Scotland), to which a court may send young persons between the ages of 17 and 21 who would otherwise be remanded to prison, and those under 17 years old who are unsuitable for remand homes.

The system of remand offers valuable opportunities for observation, the results of which are included in reports for the guidance of those responsible for the future of young offenders.

Approved Schools

Approved schools are residential schools for children and for young persons between the ages of 14 and 17 who, the courts consider, need not only removal from home but also a fairly long period of training. Children and young people may be sent to approved schools because they have committed an offence or are in need of care or protection or on certain other grounds not involving the commission of an offence. The schools may be provided by local authorities, by voluntary organisations concerned with the welfare of children and young people on a national scale, or by local committees formed by people interested in such work. In England and Wales the schools must be approved by the Home Secretary; in Scotland, by the Secretary of State for Scotland; and in Northern Ireland, by the Minister of Home Affairs.

The schools are for boys only or for girls only. They are classified according to age on admission, and include separate schools for Roman Catholics. Assignment to a school in the appropriate age group is determined by such considerations as the location of the school in relation to the home, the type of training provided, and the probable reaction of a child or young person to the individual personalities of the staff.

The main ingredients of approved school training are education in the formal sense, religious education and guidance, craft training (for the older groups), attention to health and to the use of recreation and leisure, social training and personal case work. Its primary object is the re-adjustment of children and young persons for their return to the community; contact is maintained with their homes while they are in approved schools and after they have left help and supervision are given.

The period during which a child or young person may be detained in an approved school is determined by law. In Great Britain it is three years, except for boys and girls under the age of 12 years and 4 months at the time of committal, who may be kept

until the age of 15 years and 4 months, and those over the age of 16 on committal, who can be detained only up to the age of 19, or 19½ if they have been found guilty of absconding or of serious misconduct in an approved school. In England and Wales young people over the age of 15 who present a threat to the discipline of a school may be temporarily transferred on a justice's warrant to another establishment. Those who are thought to be more suitable for borstal training may, with the consent of the Home Secretary, be brought before a magistrates' court, which has power to order removal to borstal. Managers of all approved schools are under an obligation to review the progress of each boy or girl in their charge with a view to granting a release as soon as they are fit for it; release within the first six months of the detention period requires the consent of the Home Secretary. Statutory responsibility for after-care of boys and girls released from approved schools rests on the school managers who are assisted in this work by welfare officers and the probation and child-care services.

Attendance Centres

A number of attendance centres have been established in England and Wales to deal with boys between the ages of 10 and 17 found guilty of offences for which an adult can be sentenced to imprisonment. This form of treatment is designed to teach young offenders a respect for the law and to give them some instruction in the proper use of leisure. Boys ordered to attend must do so during their spare time on Saturday mornings or afternoons; they may be required to attend for up to three hours on any one occasion and for a total of not less than twelve hours (with certain exceptions) and not more than twenty-four. The activities include a period of instruction in handicrafts, or a lecture (for example, on first aid) and a period of physical training or disciplinary tasks under supervision. Efforts are made at the centres to induce the boys to join a youth club or other suitable organisation.

There is also a centre for youths aged 17 to 21 in Manchester. This operates on similar lines to those adopted at the juvenile centres, but the activities have been adapted to meet the needs of the older age group.

Detention Centres

Detention centres provide a means of treating young offenders for whom a long period of residential training in an approved school or borstal does not seem necessary but who cannot be taught respect for the law by such measures as fines or probation. The sentence is short; the intention is primarily deterrent; and the life of a centre is therefore strict and vigorous, demanding a brisk tempo and the highest possible standard of discipline and behaviour in every aspect of training. The routine provides a normal working week of 44 hours, including one hour daily devoted to physical training, and experience has shown that much positive training can be given within the limits of this framework. Boys of compulsory school age receive full-time education, and classes of further education are provided for others in the evenings. A number of centres (both junior and senior) are already in operation, more are planned and, in due course, detention will replace short-term imprisonment for young offenders. The Criminal Justice Act, 1961, provides for statutory after-care for up to 12 months after discharge from a detention centre.

Borstal Institutions

There are various types of borstal institution, which aim to provide suitable conditions and training courses for different types of young offenders between the ages of 16 and 21 years: training borstals, reception centres (where allocation is made), correction centres and recall centres. The period of the sentence ranges from six

months to two years and is followed by supervision for two years from the date of release. In Scotland, where there is no minimum period of detention, the maximum is three years and the supervision period is for one year from the date of release from the institution. The system is essentially remedial and educational, based on personal training by a carefully selected staff. Emphasis is placed on vocational training in skilled trades; there is much freedom of movement, and many borstals are conducted in open conditions. An initial period of classification ensures that each young offender is sent to the institution best suited to his or her requirements.

Probation

The probation service is designed to secure the rehabilitation of an offender while he remains at work or at school under the supervision of a probation officer, whose duty it is to advise, assist and befriend him. A cardinal feature of the service is that it relies on the co-operation of the offender. Before making a probation order, the court must explain its effects and make sure that the probationer understands that if he fails to comply with the requirements of the order he will be liable to be dealt with for the original offence. A probation order cannot be made without the consent of the person concerned unless (in England, Wales, and Northern Ireland only) he is under 14 years of age. The order usually requires the probationer to keep in regular touch with the probation officer, to be of good behaviour and to lead an industrious life. It may also require him to live in a specified place, or to submit to treatment for his mental condition. A probation order is made for not less than one year and not more than three years.

Every magistrates' court and superior criminal court must have available the services of probation officers of both sexes. In London the appointment of probation officers is the responsibility of the Home Secretary, and in Northern Ireland of the Ministry of Home Affairs; elsewhere it is the responsibility of probation committees appointed by magistrates in England and Wales, and by local authorities in Scotland (except for certain *ex officio* members), but first appointments are subject to confirmation by the Home Secretary and the Secretary of State for Scotland respectively. Training facilities in England and Wales are provided by the Home Office on the advice of the Probation Advisory and Training Board and are made available, by arrangement, to Northern Ireland officers. In Scotland training is provided during the first year of appointment and before the officer enters on the duties of the service.

Research

Research into the causes and prevention of crime and into various methods of dealing with offenders is increasingly recognised as of vital importance in dealing with the problems of delinquency, more especially in view of the continued rise in crime which has been a disquieting feature of the social scene since the end of the second world war. Such research is being undertaken by the Institute of Criminology in Cambridge University, which, in addition to its research activities, conducts advanced courses in criminology for people engaged in work relating to the treatment of offenders and the administration of the criminal law, and a postgraduate course in criminology. A number of other academic organisations, including the Tavistock Institute of Human Relations, the London School of Economics, Birkbeck College, the Institute of Psychiatry at the Maudsley Hospital, Denmark Hill, the Department of Social Administration at Manchester University, the University of Oxford and, in Scotland, the Universities of Glasgow and Edinburgh, are also studying various aspects of the problem. The research unit at the Home Office, which is associated with some of the academic projects, also has its own programme of research.

Special Inquiries

In addition to research, special inquiries into particular questions are conducted as necessary, by advisory bodies or specially appointed committees. Reports have been issued by the Advisory Councils on the Treatment of Offenders (see p. 100) on such matters as alternatives to short-term imprisonment, the after-care and supervision of discharged prisoners, the treatment of young offenders, and corporal punishment. Among other committees which have submitted reports are the Home Office Departmental Committee on Children and Young Persons, which made 125 recommendations on various legal and administrative aspects of the working of the law in England and Wales concerning young delinquents and children in need of care or protection; and the Interdepartmental Committee on the Business of the Criminal Courts, which recommended a number of changes in the present arrangements in England and Wales for bringing to trial persons charged with criminal offences and for providing the courts with the information necessary to enable them to select the most appropriate treatment for offenders. Many of the recommendations of the latter committee have already been given effect in the Criminal Justice Administration Act, 1962.

THE POLICE SERVICE

The police service of Great Britain is organised and controlled on a local basis under the guidance of those ministers of the Crown who are responsible for the maintenance of law and order in their respective countries. In England and Wales the responsible minister is the Home Secretary; in Scotland, the Secretary of State for Scotland. In Northern Ireland the police force is controlled by an Inspector-General, who is responsible to the Minister of Home Affairs.

POLICE IN GREAT BRITAIN**Police Forces**

There are 158 regular police forces in Great Britain: 125 in England and Wales and 33 in Scotland. Each of these forces (between which there is close and constant co-operation) is responsible for a separate police district. In England and Wales the forces are defined according to area of responsibility as: county forces; borough forces; combined forces, which are forces whose area of responsibility extends over neighbouring counties or boroughs; the Metropolitan Police Force, which is responsible for an area of approximately fifteen miles radius from Charing Cross, but excluding the City of London; and the City of London force. In Scotland there are county forces, burgh forces and combined forces.

In England and Wales and Scotland police forces vary considerably in size according to the area and population which they serve. Thus the Metropolitan Police Force has a strength of approximately 17,000, while that of the smallest force in Scotland is 18.

The actual strength of the regular police force in Great Britain is approximately 85,000, including women. This is somewhat below the desirable figure, but recruitment has improved.

Part-time special constables assist the regular police. There are also police forces maintained by certain public services: these include the British Transport Commission police, the civil aviation constabulary, the Port of London Authority police and other dock and harbour forces (having duties and powers analogous to those of ordinary constables but limited to the premises and immediate neighbourhoods of their employers), and the police of the Service departments—the Admiralty constabulary, the War Department constabulary which guards War Office lands and military property,

the Royal Marine police, who are employed chiefly in dockyards, and the Air Ministry constabulary.

Police Authorities

In the counties of England and Wales the police authority is the standing joint committee, half of whose members are members of the county council while the other half are justices of the peace. In the boroughs the police authority is known as the 'watch committee' and is elected by the council from among its members. The police authority of a combined force is made up of representatives of the constituent areas as prescribed in the scheme under which they combine.

The police authority for the Metropolitan Police Force is the Home Secretary. In the City of London, the Court of Common Council is the police authority, although it usually appoints a standing committee to deal with all police matters on its behalf.

In Scotland the police authority for the counties is the county or joint county council; in the large burghs it is the town council; where there are combined forces there is a joint police committee.

It is the statutory duty of the police authorities to establish and maintain efficient police forces for their areas. They are responsible for the appointment of the chief officer of police in their areas, subject to the approval of the Home Secretary in the provinces of England and Wales, of the Crown in the City of London, and, in Scotland, of the Secretary of State. In the Metropolitan Police district, the chief officer of police and his immediate subordinates are appointed by the Crown on the recommendation of the Home Secretary.

The police authorities are also responsible (with the approval of the Home Secretary or the Secretary of State for Scotland) for the size of their forces; for paying the members of the forces their salaries; for providing and maintaining police premises; and for exercising disciplinary functions in relation to the most senior officers.

Central Authority

Co-ordination in the administration of the police service is exercised through detailed police regulations which are made by the Home Secretary and the Secretary of State for Scotland under the Police Act, 1919, the Police (Scotland) Act, 1956, and under the Police (Pensions) Acts. The police regulations cover such matters as organisation, discipline, pay, allowances, pensions, clothing, and conditions of service of the members of all police forces to which the Acts apply.

The Police Council for Great Britain, which is representative on the one side of all ranks of the police service and on the other of the local police authorities, the Home Office and the Scottish Home Department, has power to reach agreement on conditions of service in the police forces, including police pay, and on certain procedural matters. It also advises the ministers on police pensions and any other matter which may be referred to it by the ministers or any other body concerned. In their supervisory responsibilities the ministers are assisted by Her Majesty's Inspectors of Constabulary. Each inspector is responsible for a certain number of forces, and satisfies himself of their continuing efficiency by annual inspection, *ad hoc* visits and consultations when particular problems arise. The inspectors report to the ministers on the condition of all the forces, with the exception of the Metropolitan Police Force, for which the Home Secretary has responsibility as police authority and which is not inspected.

All police authorities receive a Government grant equal to half their net expenditure reckoned in accordance with the provisions of orders made under the Miscellaneous Financial Provisions Act, 1950 (as regards England and Wales), and the Police (Scot-

land) Act, 1946 (as regards Scotland). These orders empower the Home Secretary and the Secretary of State for Scotland to withhold the grant, in whole or in part, permanently or for such time as they may determine, if they are not satisfied that a police area is efficiently policed, that a force is properly maintained and administered, or that the rates of pay or allowances are as prescribed or approved by them.

Police Officers

There are several different kinds of police officer in Great Britain: regular police officers who usually serve for 25 years or more and thereafter retire on pension; members of the first police reserve, which is composed almost entirely of police pensioners or men with previous police experience who are prepared to give whole-time paid service to a particular force in an emergency, whether national or local; and special constables, who are volunteers who perform short periods of duty without pay in their spare time from their normal occupations.¹

In general, entry to the regular police force is open to men between the ages of 19 and 30, although an exception may be made, in special circumstances approved by the ministers and on the recommendation of the appointing authority, in the case of men of over 30 years of age. Women entrants in England and Wales must be between the ages of 20 and 35, and in Scotland between 20 and 30 years old. The standard police ranks in Great Britain, except in the Metropolitan Police district, are: chief constable, superintendent, inspector, sergeant and constable. The following ranks may also be adopted in areas where varying degrees of responsibility make intermediate ranks necessary: assistant chief constable, chief superintendent, chief inspector and, in England and Wales only, station inspector, station sergeant and acting sergeant. In the Metropolitan Police district the chief officer is the Commissioner of Police of the Metropolis. He is assisted by a deputy commissioner and four assistant commissioners. Next in rank are commanders, then deputy commanders; thereafter (i.e. from chief superintendent downwards) the ranks are the same as in the rest of the country. In the City of London the ranks are the same as in the provinces, except that the chief officer is the Commissioner of Police and the second in command is an assistant commissioner.

No member of the police service may belong to a trade union, since it is a basic principle of the service that its members must not only be free from political bias, but must also be seen to be free of it. The Police Act, 1919, however, laid it down that the police should have statutory representative organisations of their own. There are now several organisations representing the various police ranks, including the Police Federation in England and Wales and the Scottish Police Federation, to which all inspectors, sergeants and constables belong. Any branch or committee of the federations may make representations to the chief officer or police authority concerned or to the appropriate minister. Delegates from the joint central committees of the two federations sit on the police councils.

Police Cadets

Police cadets are recruited by most forces from among youths between 16 and 18 years of age, so that prospective constables shall have had some training and have gained sufficient insight into police duties to make reasonably certain that they wish to stay in the police service before they undergo constable's training. A few forces also recruit girl cadets.

¹ In Scotland the employment of special constables, other than in emergencies, is subject to strict limitations.

Civil Staff

A number of police authorities employ civilians as shorthand-typists, switchboard operators, mechanics, canteen staff and cleaners, in order to release uniformed personnel for police duties.

Traffic Wardens

Traffic wardens are employed in London and several other areas to assist the police in dealing with the problems created by parked vehicles. In specially designated areas traffic wardens have power to give motorists who have committed certain parking offences an option to pay a fixed penalty to the clerk of the appropriate magistrates' court instead of having their cases tried.

Police Duties

Every police officer in Great Britain is an independent holder of a public office. His powers as a constable, whether conferred by statute or by common law, are exercised by him by virtue of his office and cannot be exercised on the responsibility of any person but himself. Thus, a police officer is personally answerable at law for any wrongful act. He is not the servant of the police authority, and in discharging his duties must rely on his own good sense, discretion and knowledge of the law.

The many and varied functions of a police officer as a constable range from the protection of persons and property, road or street patrolling and traffic control to criminal investigation, the apprehension of offenders, and, in England and Wales, the preparation and presentation of straightforward cases in magistrates' courts.

All police forces have their own criminal investigation departments, and many have other specialised departments, including motor patrols, river police (in districts which include long stretches of navigable waterway), a mounted branch (for maintaining order and safety in large crowds), and police dogs.

Centrally Run Services

During recent years a number of common services have been established to supplement those provided by the police authorities for their own use. In England and Wales such services include a training service, which provides eight residential district training centres and a central police college; an installation and maintenance service of wireless equipment for the police; a forensic science service, which provides laboratories for the use of regional groups of forces; and arrangements for conducting centralised police promotion examinations. In Scotland there is a central police college, which provides training courses for recruits and courses of higher training; but the installation and maintenance of wireless equipment is a direct charge upon the police authorities concerned and there is no centrally run forensic science service. The resources of the Glasgow police force's criminal investigation department (which includes an extensive laboratory service) are, however, made available to other forces, and the universities render assistance when required.

A number of national services are provided by the Metropolitan Police Force, whose functions in this respect include: (1) the maintenance of criminal records¹ and fingerprints, which are available to all police forces of the United Kingdom and to certain foreign forces; (2) the publication of the *Police Gazette*,² which contains particulars

¹ There are, in addition to the Criminal Record Office at New Scotland Yard, a Scottish Criminal Record Office in Glasgow, and regional criminal record offices in parts of England and Wales.

² The Scottish Criminal Record Office in Glasgow is responsible for the publication of the *Scottish Police Gazette*.

of people wanted for crime and details of stolen property, and is supplied without charge to the police forces of the United Kingdom and to certain other Commonwealth and foreign forces; (3) the organisation and control of the special branch of the criminal investigation department at New Scotland Yard, whose duties include the physical protection of royalty, some ministers, and distinguished foreign visitors; and (4) the carrying out of extradition orders made by the courts. The Metropolitan Police Force also provides the United Kingdom bureau of the International Criminal Police Organisation (Interpol). For certain of these services, the Metropolitan Police Force receives an additional Exchequer grant.

Royal Commission on the Police

A Royal Commission on the Police was appointed in 1960 to review the constitutional position of the police throughout Great Britain and the arrangements for their remuneration, administration and control. The commission issued an interim report in November 1960, recommending substantial increases in the pay of constables, on which the Government took immediate action. The final report, issued in May 1962, included recommendations for a reduction in the number of separate police forces; for greater uniformity in the composition and functions of local police authorities; for an extension of the responsibility and powers of the Home Secretary and the Secretary of State for Scotland in regard to the efficiency of the police services; for the appointment of a chief inspector of constabulary for the whole of Great Britain and of additional regional inspectors; and for the establishment of a new central unit for planning and research.

POLICE IN NORTHERN IRELAND

The Royal Ulster Constabulary comes under the direction of the Inspector General, who is responsible to the Minister of Home Affairs. It undertakes the policing of the whole of Northern Ireland, its cost being borne by the Northern Ireland Exchequer with a nominal contribution from the county borough of Belfast.

The strength of the Royal Ulster Constabulary is approximately 3,000. The Inspector General has, under his immediate command, a deputy inspector general, a commissioner for the City of Belfast, and a county inspector for each of the six counties. The area is further sub-divided into districts, each district coming under a district inspector and each sub-district under a head constable or a sergeant. Conditions of service and pay follow closely on the lines of the police service in Great Britain, and the general duties pertaining to the various ranks are much the same. Although the more senior ranks bear different titles, the ranks of head constable, sergeant and constable are broadly equivalent to the three junior ranks in the police service of Great Britain.

The Ulster Special Constabulary also comes under the direction of the Inspector General. In the main, this force is a part-time body and, apart from training, its duties consist in affording assistance to the Royal Ulster Constabulary on special occasions; if necessary, however, its part-time personnel may be mobilised for full-time duty.

4

DEFENCE

An adequate general survey of the principles which govern United Kingdom defence policy is possible only in the wider context of the United Kingdom's international relationships, its place in the Commonwealth and in world affairs, and its responsibilities towards British dependent and protected territories—subjects which, as explained in the Introduction, fall outside the scope of this handbook. This chapter, therefore, can attempt little more than an outline of the present pattern of the development of Britain's armed forces.

DEFENCE POLICY

The national defence policy has been increasingly based on the realisation that no country can protect itself in isolation and the defence of Britain is possible only as part of a system of collective defence. Policy is therefore determined largely by Britain's obligations to contribute to the collective defence organisations of which it is a member—the North Atlantic Treaty Organisation (NATO) and Western European Union (WEU), the Central Treaty Organisation (CENTO, formerly the Baghdad Pact), and the SEATO defence system in South-East Asia—and to contribute to the long-range nuclear forces of the West, as well as to discharge its own special responsibilities in many parts of the world; and defence planning is carried out in close co-operation with Britain's partners in these organisations.

Close liaison is maintained with other Commonwealth countries, between whose forces there is considerable standardisation of equipment, weapons and training techniques and interchange of personnel.

At the same time the United Kingdom continues to work for the attainment of international agreement on disarmament under effective control.

Machinery of Higher Defence Planning

Supreme responsibility for national defence rests, under the ultimate control of Parliament (which makes annual financial provision for defence needs), with the Prime Minister and the Cabinet. Subject to this supreme responsibility, defence problems which engage the collective responsibility of the Cabinet are normally handled on the Cabinet's behalf by the Defence Committee, meeting under the chairmanship of the Prime Minister. The Prime Minister determines which members of the Defence Committee should attend particular meetings of the committee, according to the subjects to be discussed and the ministerial responsibilities involved. The Minister of Defence, who is a member of the Cabinet and of the Defence Committee, has authority to decide (subject to the responsibilities of the Cabinet and the Defence Committee) all major matters of defence policy affecting the size, shape, organisation and disposition of the armed forces, and their weapons and war-like equipment and supply (including defence research and development). He is also ministerially responsible to the Prime Minister for the execution of military operations approved by the Cabinet

or the Defence Committee. Recommendations for the more important Service appointments are submitted by the Service Ministers (the First Lord of the Admiralty, the Secretary of State for War, who deals with the Army, and the Secretary of State for Air) for the approval of the Minister of Defence, who, in appropriate cases, seeks the covering approval of the Prime Minister.

The Service Ministers, working through the Board of Admiralty and the Army and Air Councils, are responsible for the efficiency and administration of the three Services. The Minister of Aviation is responsible for the supply to the Services of aircraft, guided and nuclear weapons, and electronic equipment. All these ministers are members of the Defence Committee; consultation on defence policy between them and the Minister of Defence and discussion of inter-Service problems take place at meetings of the Defence Board, of which the Minister of Defence is chairman.

The Chiefs of Staff Committee, which comprises the Chief of the Defence Staff (who is principal military adviser to the Minister of Defence), as chairman, and the professional heads of the three Services, is collectively responsible to the Government for professional advice on strategy and military operations and on the military implications of defence policy generally. Its collective advice is given to the Minister of Defence by the Chief of the Defence Staff, who tenders his own advice, together with the views of the other members of the committee, if the committee cannot reach agreement. The Chief of the Defence Staff is responsible for issuing operational orders, and he is entitled to call on the respective Chiefs of Staff for assistance from the services of the Naval, General and Air Staffs. The Chiefs of Staff are members of the Defence Board, are in attendance at meetings of the Defence Committee and may be invited to attend meetings of the full Cabinet as necessary; they have at all times a right of access to the Minister of Defence and, when necessary, to the Prime Minister. A new Joint Service Staff at the Ministry of Defence was set up in 1962 to advise the Chiefs of Staff on all aspects of joint Service operations and training.

Britain's defence policy is reviewed each year in a White Paper presented to Parliament by the Minister of Defence immediately before the detailed Estimates of the Service Departments.

The Five-Year Programmes

After the end of the second world war the strength of the United Kingdom armed forces was drastically reduced. It was not until growing world tension made it inevitable that this trend was first halted and then reversed. Following the outbreak of war in Korea the United Kingdom embarked on a programme for building up its defence forces. During the next three years annual defence expenditure was nearly doubled, absorbing some ten per cent of the gross national product in 1953; the period of compulsory national service was lengthened; and the total strength of the active forces increased to a peak of over 800,000. With the end of hostilities in Korea, and in the face of rising costs, the programme was revised somewhat, but in the years that followed the maintenance and equipment of the forces continued to impose a very heavy burden on the economy in terms of manpower and financial commitments, including expenditure in foreign currencies to maintain British forces overseas.

The White Paper for 1957—*Defence: Outline of Future Policy (Cmd. 124)*—set out a five-year plan for the reshaping of the defence forces in the light of changes in the international situation, the rapid progress in military technology, and the need to relieve the burden which defence requirements had been imposing on the country's financial and economic strength. The progress of this programme, described in the White Paper as involving 'the biggest change in military policy ever made in normal

times' was reviewed in the four following White Papers. The 1962 White Paper, *The Next Five Years* (Cmnd. 1639), set out the second five-year plan.

The basic objectives of Britain's defence policy, the 1962 White Paper stated, will remain:

- (a) 'to maintain the security of this country;
- (b) 'to carry out our obligations for the protection of British territories overseas and those to whom we owe a special duty by treaty or otherwise;
- (c) 'to make our contribution to the defence of the free world and the prevention of war in accordance with the arrangements we have with individual countries and under collective security treaties'.

'We seek to exercise military power' the statement continued, 'only when and where it is essential for the furtherance of these objectives, to do this with forces whose total claims on our resources are consistent with the maintenance of a sound economy, and to devise a deployment and a strategy that can rapidly be adapted to changing circumstances.'

The plans provided for smaller, more closely integrated, highly trained, all-regular forces with increased mobility, equipped with the most modern weapons and organised on up-to-date lines, and for a central strategic reserve to be maintained in Britain with means of transport, including airlift, to take it rapidly to the scene of any trouble.

Deployment Overseas

The deployment of United Kingdom forces is world-wide, in fulfilment of responsibilities under the regional defence organisations of which the United Kingdom is a member, and for the defence of United Kingdom dependencies. A considerable part of these forces is committed to NATO on the continent of Europe. Forces are also maintained in the Near, Middle and Far East; East, Central and North Africa; and the Caribbean.

Where appropriate, unified commands are being established overseas. In October 1959 a unified command (with headquarters in Aden) was established for all United Kingdom land and air forces in the Arabian Peninsula, Persian Gulf and East Africa, together with the naval forces allotted to the Persian Gulf, and in 1962 it was decided to introduce a similar arrangement, as soon as practicable, for all three Services in Singapore, Malaya and Hong Kong (with headquarters in Singapore). The main base for the support of CENTO is in Cyprus and the Air Officer Commanding-in-Chief is responsible for all British forces in the Near East. In the Mediterranean there are Army garrisons for local defence and naval and air operating facilities in Malta and Gibraltar.

THE DEFENCE BUDGET

In recent years defence has accounted for about a quarter of all central Government ordinary expenditure. The cost of the defence programme for 1962-63 was estimated at £1,721.06 million, or 7 per cent of the gross national product. Britain's contribution to the Western nuclear deterrent accounts for some 10 per cent of this total.

Britain's contribution to the NATO shield forces involves a deployment of forces overseas and a consequent heavy burden on the country's balance of payments. The agreement reached in 1962, whereby the Federal Republic of Germany will contribute £54 million in each of the two years 1962-63 and 1963-64 towards the support costs

of the British Army of the Rhine (BAOR), has somewhat relieved this strain. This figure represents three-quarters of the foreign exchange expenditure on British forces in Germany. In 1961 the expenditure in foreign currency for the maintenance of British forces abroad amounted to some £227 million.

The allocation of finance between the various Services is shown in Table 5.

TABLE 5

DEFENCE ESTIMATES, 1962-63										<i>£ million</i>
Admiralty	..	..	..	..	..	..	..	..	..	422.27
War Office	..	..	..	..	..	..	..	..	..	523.92
Air Ministry	..	..	..	..	..	..	..	..	..	552.15
Ministry of Aviation	..	..	..	..	..	..	..	..	..	204.30
Ministry of Defence	..	..	..	..	..	..	..	..	..	18.42
										1,721.06

The Ministry of Defence Estimates consist mainly of contributions to NATO and other international defence organisations.

Home defence expenditure by civil departments in 1962-63 is estimated at £19.37 million.

MANPOWER

The 1957 five-year plan provided for the ending of National Service and for a reduction of about 300,000 in the combined strength of the three Services, which stood at nearly 700,000 (adult United Kingdom males) in 1957. The present aim is for a defence force of between 390,000 and 400,000 professional Service men, with the highest possible proportion in effective combat units, backed up by an equal number of civilians, to whom have been transferred many duties formerly performed by uniformed members of the forces.

Under the National Service Acts, 1948-55, fit male British subjects between the ages of 18 and 26 ordinarily resident in Great Britain were liable to serve for two years' whole-time service in the regular forces, and thereafter three and a half years' part-time service in an auxiliary force. Deferment of National Service was granted in certain cases (for instance, for students, trainees, those employed in certain occupations in the national interest), while postponement of call-up could be granted on grounds of exceptional hardship.

There has been no call-up of National Service men since November 1960 and it was intended that by the end of 1962 the armed forces should be composed entirely of regulars. The growth of international tension over the Berlin crisis and the temporary shortage of manpower created during the transition to an all-regular army, however, led to the passing of the Army Reserve Act in 1962. This provided, in addition to the creation of a new form of volunteer reserve, known as the Territorial Army Emergency Reserve (the 'Ever-Readies'), within the Territorial Army (see p. 127), for permissive power to retain serving National Service men for up to six months and to recall ex-National Service men for a similar period during their statutory period of 3½ years' part-time reserve. An analysis of the strength of the forces in April 1962, with estimates for 1963, is given in Table 6.

TABLE 6
ACTIVE STRENGTH OF THE ARMED FORCES, 1962-63 *Thousands*

	1st April, 1962				1st April, 1963 (estimate)			
	Navy(a)	Army	RAF	Total	Navy(a)	Army	RAF	Total
Regular (male) ..	86.5	160.7	129.2	376.4	87.8	166.5	132.6	386.9
National Service ..	—	25.8	5.4	31.2	—	—(b)	—	—
Women (including nurses)	3.3	6.7	6.8	16.8	3.5	6.3	7.1	16.9
Boys	4.5	9.5	7.5	21.5	4.9	9.9	7.7	22.5
TOTALS	94.3	202.7	148.9	445.9	96.2	182.7	147.4	426.3

(a) Figures for the Navy include the Royal Marines.

(b) No provision has been made in the Table for the effect of the Army Reserve Act (see p. 116).

In addition, reserve and auxiliary forces with training liability (volunteers and part-time National Service men) totalled 373,000 on 1st April, 1962.

Arrangements for recruitment and training of regulars are summarised for each Service separately later in this chapter. Pay and pensions are reviewed at intervals of not more than every two years and other steps are being taken to improve the conditions of Service life, including an extensive building programme.

A Regular Forces Resettlement Service, set up by the Minister of Labour in 1957, assists regular officers and other ranks to find civilian employment on leaving the forces (see Chapter 15, Labour).

Commissioned Ranks

The following are the main commissioned ranks in the three fighting Services; each rank is shown parallel to its equivalent in the other Services.

Royal Navy

Admiral of the Fleet
Admiral
Vice-Admiral
Rear-Admiral
Commodore
Captain
Commander
Lieutenant-Commander
Lieutenant
Sub-Lieutenant

Army

Field-Marshal
General
Lieutenant-General
Major-General
Brigadier
Colonel
Lieutenant-Colonel
Major
Captain
Lieutenant
Second Lieutenant

Royal Air Force

Marshal of the RAF
Air Chief Marshal
Air Marshal
Air Vice-Marshal
Air Commodore
Group Captain
Wing Commander
Squadron Leader
Flight Lieutenant
Flying Officer
Pilot Officer

Staff Colleges

Selected officers of all three Services who have had previous staff training or have been to the Royal Naval Staff College, Greenwich (London), the Army Staff College at Camberley (Surrey), or the Royal Air Force Staff Colleges at Bracknell (Berkshire)

or Andover (Hampshire), go to the Joint Services Staff College at Chesham (Buckinghamshire), where they live and work together and where particular attention is paid to the inter-Service aspects of staff work. This college caters for about 150 students a year from the Navy, Army and Air Force, the Civil Service, and other Commonwealth countries. Finally, there is the Imperial Defence College in London, to which are sent a few specially selected and more senior officers from the Services, the Civil Service, and from other Commonwealth countries.

SUPPLY OF WEAPONS AND EQUIPMENT

The Ministry of Aviation is responsible for the supply to the Services of aircraft, guided weapons (including ballistic missiles), nuclear weapons, and certain radar and other electronic equipment. The individual Service departments are responsible for the procurement of other weapons, stores and equipment, except that responsibility for such stores and equipment when used by more than one Service normally rests with the War Office, which in many cases is the largest user.

Production and Research

Production for the Services is carried out to a great extent by private industry on a contract basis, but also by the Royal Ordnance Factories, the Royal Dockyards and other establishments operated by the Ministry of Aviation, the Admiralty and the War Office. The Ministry of Aviation's research establishments carry out research and development on behalf of the War Office and the Air Ministry, and also for certain aspects of Admiralty requirements, in particular naval aviation. Among the most important of these establishments are: the Royal Aircraft Establishments, Farnborough and Bedford; the Royal Radar Establishment, Malvern; the National Gas Turbine Establishment, Farnborough; the Guided Weapons Establishment (an outstation of the Royal Aircraft Establishment) at Aberporth, Cardiganshire; the Rocket Propulsion Establishment, Westcott, Buckinghamshire; and the Aircraft and Armament Experimental Establishment, Boscombe Down, Wiltshire. War Office controlled research establishments include the Royal Armament Research and Development Establishment, Sevenoaks, Kent; and the Fighting Vehicles Research and Development Establishment, Chobham, Surrey. The Admiralty research establishments (see p. 121) carry out research on ships, maritime equipment and weapons and also on certain kinds of electronic equipment on behalf of all three Services. Current production and development programmes are summarised later in this chapter in the sections dealing with the three Services individually.

Development and production of nuclear warheads to meet Service requirements are carried out by the Atomic Energy Authority (see p. 215) under contract from the Ministry of Aviation, which is responsible for the completed weapons. The Atomic Energy Authority is also co-operating with the Admiralty in research on the development of nuclear propulsion (see p. 121).

Service officers attend courses at the Atomic Energy Research Establishment, Harwell, and have also been attached to industrial firms manufacturing guided weapons during the development stage.

Guided missiles are tested at the Ministry of Aviation's research establishments, and guided and ballistic missiles at the Woomera range set up in Australia under the Joint United Kingdom/Australia Guided Weapon Project. Service firing trials of air-to-air and surface-to-air missiles are carried out at Aberporth and at the Army gunnery range in Anglesey; a range for testing surface-to-surface missiles has been

set up on South Uist in the Hebrides. There is close collaboration with the United States in the exchange of information and visits by technical personnel.

Some military equipment, including guided weapons, aircraft and radar equipment, is being supplied to Britain by the United States under the Mutual Security Programme. Part of this equipment is manufactured in the United Kingdom and financed by the United States under the 'off-shore procurement' programme. Under this programme the United Kingdom is also making equipment for other NATO countries in Europe. Wherever possible, weapons and other military equipment are standardised with NATO allies. The United Kingdom and the Federal Republic of Germany, for example, are co-operating in the development of tanks, light tracked vehicles and anti-tank weapons.

In addition to any orders for warships that may be placed from abroad with British yards, ships of the Royal Navy which have become surplus to United Kingdom requirements are made available to the Governments of other Commonwealth countries and to those of other friendly nations.

Nuclear Weapons

During the second world war British research workers played an essential part in the allied project that led to the production of the first atomic bombs in the United States. After the war the exchange of information on atomic weapons was for a time prohibited by an Act¹ of the United States Congress (later amended), and the United Kingdom therefore developed its own independently. The first test explosion of a British atomic weapon was carried out in 1952 in the Monte Bello Islands, off the north-west coast of Australia; further tests took place a year later near the Woomera rocket range, in central Australia, and early in 1954 it was announced that delivery of atomic weapons to the armed forces had begun. Further series of tests were held in 1956 and 1957, in the Monte Bello Islands and at the weapons proving ground at Maralinga, in the South Australian desert. Britain now has a substantial stockpile of kiloton weapons.

In 1955 the Government announced its intention to proceed with the development of thermonuclear weapons. The first test explosions were successfully carried out in May and June 1957 near Christmas Island in the central Pacific, and further tests were carried out in the same area later in 1957 and in 1958. The production of British megaton weapons is now proceeding steadily and the exchange of information with the United States² has enabled important technical advances to be made in the design of nuclear warheads which will permit a significant increase in the rate of production. In March 1962 a further underground test took place in Nevada (USA).

The chief means of delivering these weapons are at present the RAF's medium bombers of the V-class. The development is proceeding of *Blue Steel* propelled stand-off bombs which will greatly reduce the vulnerability of a bomber aircraft by enabling it to release its bombs a long distance from the target. In accordance with an agreement signed between the United Kingdom and United States Governments in 1958,

¹ The Atomic Energy Act, 1946 (known as the McMahon Act), subsequently replaced by the Atomic Energy Act, 1954. Substantial relaxations were made by amending legislation passed in 1958.

² An Anglo-American agreement, signed in July 1958, made possible the exchange of information on the design and manufacture of nuclear weapons. This agreement was amended and supplemented by a further agreement, signed in May 1959, which contained provisions to enable the United Kingdom to buy from the United States component parts of atomic weapons and weapons systems, other than actual warheads, and to make possible the exchange of nuclear materials between the two countries.

launching sites have been provided for US *Thor* intermediate-range ballistic missiles; it was stated in August 1962, however, that this arrangement would be ended during the next year. The possibilities of mobile launchers (aircraft or submarines) for long-range delivery of nuclear warheads are being investigated. The United States air-launched missile *Skybolt*, which is under development in the United States, will be introduced into Bomber Command by an agreement reached in 1960 between the United Kingdom and the United States Governments. The missile, which will have a British nuclear warhead, is expected to be in service by 1965 and will be carried by the Vulcan Mark 2 bombers. Research is in progress into defensive measures against ballistic missiles and, under agreements between the United Kingdom and United States Governments signed in 1960 and 1961, a joint Ballistic Missile Early Warning Station, which will come into operation during 1963, is being built at Fylingdales Moor in Yorkshire and a Missile Defence Alarm Station (using space satellites to detect missiles) is to be established at Kirkbride, Cumberland. The United States is providing the equipment for these stations. The United Kingdom provides facilities for a depot ship in the Holy Loch (Firth of Clyde, Scotland) for United States *Polaris* nuclear submarines, as part of the British contribution to strengthening the NATO alliance.

THE ROYAL NAVY

The Royal Navy is governed by the Board of Admiralty, which has three civilian and six naval members. The First Lord of the Admiralty is the minister responsible to Parliament for the Navy. The other civilian members of the Board of Admiralty are the Civil Lord, a junior minister, and the Permanent Secretary, who is a civil servant and responsible for the general conduct of Admiralty business, including finance. The naval members are the First Sea Lord and Chief of Naval Staff; the Second Sea Lord and Chief of Naval Personnel; the Third Sea Lord and Controller of the Navy, whose responsibilities include ship construction and repair, research and the provision and repair of naval aircraft; the Fourth Sea Lord, Chief of Supplies and Transport and Vice-Controller, who is also responsible for maintenance and dockyard organisation; the Vice-Chief of Naval Staff, who assists the First Sea Lord; and the Deputy Chief of Naval Staff and Fifth Sea Lord, responsible for stating requirements for ships, aircraft and weapons and for laying down Admiralty policy on aircraft research and development.

The Shape of the Fleet

The new Navy that is coming into being is smaller than that of the past but highly mobile and flexible. The aircraft carrier will continue to be the core, and grouped round the carriers will be supporting ships carrying the latest weapons for dealing with air, surface and underwater attacks and capable of acting by themselves on detached service. Seaborne task forces will include commando ships and assault ships designed to carry a striking force of troops with their tanks, guns and logistic backing.

During 1962 there were 140 ships in the operational Fleet (including 3 aircraft carriers, 2 commando ships, 4 cruisers, 52 destroyers and frigates and 30 submarines), together with 37 engaged on trials and training and 71 support ships and auxiliaries.

The modern carriers are equipped with the angled flight deck, the steam catapult, the automatic aircraft positioning device, and the mirror and 'Audio' landing aids (all British inventions), and the most advanced type of air warning and direction system. A new carrier, the *Hermes*, equipped to carry the latest aircraft now in production for the Fleet Air Arm (see p. 122), joined the Fleet in 1960. Two former aircraft carriers, the *Bulwark* and the *Albion*, have been converted into commando

carriers, designed to carry a Royal Marine commando (some 750 men), together with helicopters, landing craft and vehicles.

Three 'Tiger' class cruisers, with fully automatic armament and the latest control equipment, have been completed. Of six 'County' class guided missile destroyers on order, two are due to commission by the spring of 1963 and the construction of two more is well advanced. Their armament includes the *Seashug* missile, a most effective weapon for the interception of attacking aircraft, and the shorter range *Seacat* missile for close air defence.

The last of eight fast long-range conventional submarines of the 'Porpoise' class was completed in 1961-62 and the 'Oberon' class began to come into service in the same year. The Navy's first nuclear-propelled submarine, the *Dreadnought*, was launched in 1960 and is due to commission in 1962-63. It incorporates a United States nuclear propulsion unit. Three all-British nuclear submarines, of which the first will be the *Valiant*, have been or are to be ordered. The speed, range and endurance of these submarines will enable them to operate independently of fixed bases.

One of the main purposes of Reserve ships is to have ready, at short notice, ships to replace those in the Active Fleet which are damaged or withdrawn for refit or modernisation. Under the new defence policy the number of Reserve ships is smaller than in the past, but they are being maintained at a higher state of readiness.

Afloat support to the Fleet for replenishment at sea, or in harbours or anchorages, is provided by the Royal Fleet Auxiliary Service, comprising tankers, store-issuing ships, tugs and salvage vessels. These ships fly the Blue Ensign and are manned by Merchant Navy officers and seamen.

Research and Development

Much experimental work has been carried out, with the Atomic Energy Authority, on nuclear propelled submarines and a nuclear submarine power unit prototype under construction at Dounreay (see p. 215) will enter its final stage in 1962-63. Fundamental investigations are also in hand for the development of counter-measures against submarines with increased underwater speed. The nuclear submarines, with their sensitive detection gear and armament of homing torpedoes, will be specially effective anti-submarine weapons. To provide the Navy with facilities for basic education in nuclear engineering and research, a low-power training reactor is being installed at the Royal Naval College, Greenwich. Research is proceeding with the aim of providing automatic means for handling tactical information in warships.

Research and development work to meet the Navy's modern requirements for weapons is now concentrated in two establishments. At Portsmouth (near Portsmouth), the design and development of ship-borne gunnery and guided missile systems is carried out. At Portland (Dorset), all aspects of work on underwater detection are co-ordinated with work on underwater weapons.

Commands and Naval Dockyards

The Navy's main home commands are Portsmouth, Plymouth, Scotland (Rosyth) and the Commander-in-Chief, Home Fleet. In the North Atlantic and Mediterranean area, United Kingdom naval forces (assigned to NATO) are equipped predominantly for an anti-submarine role, and consist of two aircraft carriers, two cruisers and a number of destroyers, frigates and submarines. In the Far East, the fleet (based on Singapore) is an all-purpose force of one aircraft carrier, one commando carrier and one cruiser, together with destroyers, frigates and smaller vessels. Smaller naval forces operate under the Commander-in-Chief, South Atlantic and South America Station;

the Senior Naval Officer, West Indies Station; and the Flag Officer, Middle East, who is also Naval Deputy to the Commander-in-Chief, Middle East Command.

The dockyards at Portsmouth, Devonport, Chatham and Rosyth provide the Navy with major supplies and repair facilities at home. Singapore and Gibraltar are the main dockyards overseas.

Fleet Air Arm

The Supermarine *Scimitar*, which can carry an atomic bomb and which is fitted, owing to its high speed, with a 'flap-blowing' system to facilitate landing on carriers, and the de Havilland *Sea Vixen*, with armament which includes an air-to-air guided weapon, the *Firestreak*, provide the main strike and fighter strength of the Fleet Air Arm. The new long-range strike aircraft, the *Buccaneer*, which can carry an atomic bomb, will embark in *Ark Royal* early in 1963. The United States air-to-surface missile, *Bullpup*, has been adopted for use in naval fighter and strike aircraft.

The anti-submarine turbo-prop Fairey *Gannet*, in service since 1954, has now been replaced in that role by helicopters; *Gannets* are still used in the search role. Reinforcing the *Whirlwind* and the *Dragonfly*, a more powerful all-weather helicopter, the *Wessex*, which came into service in the autumn of 1961, is in front line service as the Navy's main anti-submarine aircraft. It carries both homing torpedoes and dipping asdic. During 1962 it embarked in carriers and in the guided missile-carrying destroyers, and a commando troop-carrying version armed with the *SSII*, a French anti-tank guided missile, came into service for the commando ships. Initial orders have been placed for the *Wasp*, a light torpedo-carrying helicopter (formerly known as the Westland *P 531*).

Royal Marines

The *Corps of Royal Marines* is a body of men trained for service on sea or land. Its official existence dates from 1664. The present-day functions of the corps are:

- (1) to provide personnel for Commandos;
- (2) to provide crews for minor landing craft and certain other parties required for amphibious assault; and
- (3) to supply detachments for H.M. ships, which (a) play their part in the routine duties of their ship, (b) provide emergency landing parties, and (c) carry out guard duties and the like.

Women's Royal Naval Service

The *Women's Royal Naval Service* (WRNS) is an integral part of the Navy. Its members serve both at home and overseas. It has its own disciplinary code. Nursing services for the Navy are provided by *Queen Alexandra's Royal Naval Nursing Service* (QARNNS).

Recruitment and Training for the Regular Navy

The main entry for naval officers is the Cadet Entry. Cadetships on the General List (Seaman, Engineer, Electrical¹ and Supply) are available to young men between

¹ The Electrical and Engineering specialisations were amalgamated into the one Engineering specialisation in the summer of 1961. The amalgamation will be progressively implemented as officers trained or experienced in the new departmental responsibilities become available for Fleet appointments. The organisation of all units of the Fleet will take from two to three years, the cross-training of individual officers will continue for about six years and the initial Engineering training of General List officers is being adjusted; the first officers so trained reached the Fleet during 1962.

the ages of approximately 17 and 19½ years. A number of scholarships are awarded to boys between the ages of 15 and 17½; these give help with maintenance and school fees for the two years before a boy goes to Dartmouth. Those selected enter Britannia Royal Naval College, Dartmouth, in September each year. Here they spend a year doing Basic Naval Training, ashore and afloat, followed by a year as midshipmen at sea in the Fleet. The Seamen and Supply Officers then return for a further year at Dartmouth for academic training, followed by specialist courses and a further year at sea. The Engineer and Electrical Officers study for a degree, for which specially selected officers go to Cambridge, the others reading for an external London degree at the Royal Naval Engineering College, Manadon. There is an entry into the Engineering specialisation of the General List for graduates in mechanical or electrical engineering. Candidates must be under the age of 25. A few direct entry permanent commissions are also available to graduates as Instructor Officers.

Short service commissions on the Supplementary List for Seaman duties, for aircrew duties with the Fleet Air Arm or in electrical specialisation are available to young men with appropriate qualifications. Doctors, dental surgeons and instructor officers can enter on short service commissions after completing their professional training; cadetships leading to short service commissions are being introduced in the Medical Branch. Permanent commissions are awarded according to the vacancies available. Ratings may qualify for a commission on the General List, on the Supplementary List for Seaman and aircrew duties, and on the Special Duties List.

Commissions in the Royal Marines are gained through similar procedures as for Royal Navy Cadet Entry. Age limits for entry are approximately 17½–19½. Successful candidates are given a special training, part naval and part military, which lasts three and a half years. Other ranks may qualify for commissions on the Royal Marines General or Special Duties Lists.

The age limits for entry as a rating in the Navy are as follows: seaman, engineering mechanic, electrical mechanic and naval air mechanic branches, and stores and cook ratings in the supply and secretariat branch, 15 to 28 years; communications and naval airman branches and writer and steward ratings in the supply and secretariat branch, 16¼ to 28; artificer apprentices, 15 to 17½; mechanic apprentices, 17½ to 23; sick berth branch, 17½ to 28; artificers (trained), up to 28 years. The initial engagement is for a period of 9 years over the age of 18, plus a period of three years in the Royal Fleet Reserve. Exceptionally, for artificer apprentices it is 12 years over the age of 18. Age limits for entry into the ranks of the Royal Marines are: marines, 17 to 28 years; junior entry (general service duties), 16 to 17; boy buglers, 15 to 16½; junior musicians, 14 to 17½; musicians (trained), 17½ to 28 years. Women may enter the Women's Royal Naval Service between the ages of 17½ and 28 years for an initial period of 4 years; most WRNS officers are selected from serving ratings.

On entry, all naval and WRNS ratings and Royal Marines other ranks are given a basic training at the appropriate school or shore establishment and, in most branches, are given further training during their careers to fit them for promotion within their branch, to qualify them for the award of a higher specialist qualification or to prepare them for Special Duties which are not covered by the standard promotion courses.

Reserve and Auxiliary Forces

The *Royal Naval Reserve* (RNR) consists of volunteer reserves—serving at sea in the Merchant Navy or the fishing fleets or in civilian employment ashore—who carry out training in time of peace to meet the Navy's mobilisation requirements. Other reserves include the *Royal Fleet Reserve* (RFR), composed of men who have

completed their service as regulars; the *Royal Naval Special Reserve* (RNSR), which includes most of the National Service men who are discharging their liability for part-time service; the *Royal Marine Forces Volunteer Reserve* (RMFVR); and the *Women's Royal Naval Reserve* (WRNR).

Minewatching Service

The *Minewatching Service*, a civilian organisation composed of men and women volunteers, is responsible in time of war for manning posts around the coast and overlooking the main navigable waterways for the purpose of spotting, plotting and reporting the position of mines dropped from aircraft. It would also provide Port Parties, i.e. the basic local organisation for Resident Naval Officers and Naval Officers-in-Charge who would be appointed to minor ports. Some of the duties entail service afloat in small craft.

Sea Cadet Corps

The *Sea Cadet Corps*, which is administered by the Navy League in conjunction with the Admiralty, is a voluntary youth organisation for boys between 12 and 18 years of age. Its origin dates from the time of the Crimean War in the mid-nineteenth century. It aims at developing in the cadets qualities which make for good citizenship, and through its discipline and sea training it greatly assists those boys who wish to make their career at sea, whether in the Royal Navy, Royal Marines or Merchant Navy.

THE ARMY

The control of the Army is vested in the Army Council, of which the Secretary of State for War is president. The other civilian members of the Council are the Parliamentary Under-Secretary of State for War and Financial Secretary of the War Office (who is a minister and vice-president of the Council), and the Permanent Under-Secretary of State for War, a civil servant who acts as secretary to the Council. The Service members of the Army Council are the Chief of the Imperial General Staff, who is assisted by the Vice-Chief of the Imperial General Staff, responsible for strategic policy and plans, operations and intelligence, and the Deputy Chief of the Imperial General Staff, responsible for organisation, equipment, weapons and training; the Adjutant-General to the Forces, responsible for manpower, personnel, discipline, medical services, welfare, education, and the women's services; the Quartermaster-General to the Forces, responsible for supplies, transport and, jointly with the Permanent Under-Secretary, works services; and the Master-General of the Ordnance, responsible for research into, and the design, development, production and procurement of, Army stores.

Organisation of the Active Army

The active Army is organised in 30 arms and services,¹ which include the Household Cavalry, the Royal Horse Artillery, the Royal Armoured Corps (the historic Cavalry Regiments and the Royal Tank Regiment), the Royal Regiment of Artillery, the Corps of Royal Engineers, the Royal Corps of Signals (which provides land and wireless communications), the five regiments of Foot Guards (the Brigade of Guards), the regiments of the Infantry of the Line (grouped into brigades and the Parachute Regiment), the Army Air Corps (which operates light aircraft on reconnaissance and undertakes aerial observation and liaison work), the Royal Army Service Corps (responsible for

¹ These arms and services include the women's corps.

the provision of food and fuel supplies and transport vehicles), the Royal Army Medical Corps, the Royal Army Ordnance Corps (responsible for most equipment and stores), and the Royal Electrical and Mechanical Engineers.

The Women's Royal Army Corps (formerly ATS) and the Queen Alexandra's Royal Army Nursing Corps (formerly QAIMNS) are both corps of the Regular Army, their officers and other ranks being subject to military law and the Queen's Regulations in the same way as members of the other corps.

Within the United Kingdom, the Army is organised into Scottish, Northern, Southern, Eastern, Western, and Northern Ireland Commands, and London District. There are five main commands overseas: Near East Land Forces (Mediterranean), Middle East Land Forces (Arabian Peninsula), East Africa Command, Far East Land Forces, and the British Army of the Rhine (which forms part of Britain's contribution to the NATO forces).

As the strengths of overseas garrisons are reduced, increased importance is being attached to a central strategic reserve, based mainly in the United Kingdom.

Equipment

The weapons of the second world war have almost entirely disappeared and the Army is being completely rearmed with a new range of weapons, vehicles and other equipment.

Increasing emphasis is being placed in current plans on transportability by air, in order to secure strategic mobility. Certain bulky items of equipment, such as heavy tanks, cannot be transported by air but, apart from these items, air portability is a major feature of the Army's new equipment. Equipment transportable by air in service or being planned includes the *Wombat* recoil-less anti-tank weapon, improved mortars and light vehicles for the infantry, the *Ferret* scout car and the *Saladin* armoured car in service with the Royal Armoured Corps, the *Malkara* guided missile anti-tank system, the *Thunderbird* surface-to-air anti-aircraft guided weapon for the Royal Artillery and the advanced infantry anti-tank guided weapon *Swingfire*. Air-portable howitzers have also come into service.

For tactical mobility within a theatre of operations, new engineer equipment for rapid construction and repair and new bridging equipment are on order. To assist in achieving mobility on the battlefield itself, the *Centurion* tank has been equipped with more powerful armament, pending the entry into service of its successor, the *Chieftain*, now undergoing trials, and it has been decided to adopt the *Vigilant* anti-tank guided weapon system, which is small enough to be carried by its crew; certain infra-red devices to facilitate movement and viewing by night without the aid of visible light, are being introduced; radio communications in the field are being greatly improved with new equipment which includes the manpack portable set, a radio relay set, and a new set for armoured vehicles; new radar equipment to detect enemy mortars was introduced into service in 1961; and a self-propelled gun of increased range and performance and an improved type of armoured personnel carrier are under trial. The Canadian *Beaver*, a light liaison aircraft, started coming into service in 1961. The Regular Army has been re-equipped with the British version of the FN self-loading rifle, a weapon of Belgian origin adopted by the United Kingdom in the interests of standardisation with other NATO forces; the FN general purpose machine gun is replacing the Vickers and the Bren.

Progress is being made in the introduction of surface-to-surface guided weapons. In the British Army of the Rhine (BAOR) two artillery regiments have been equipped with the *Corporal*. A number of composite regiments armed with the United States

Honest John missile and the eight-inch howitzer have been introduced into BAOR. Two of the Army's heavy anti-aircraft regiments have been equipped with the *Thunderbird* surface-to-air missile. The Australian *Malkara* air-portable anti-tank guided weapon is being delivered and training has started on the *Vigilant* anti-tank weapon.

Recruitment and Training for the Regular Army

The normal method of entry for a regular commission in the Army is through the Royal Military Academy, Sandhurst (Camberley, Surrey), where selected cadets undergo a course lasting two years before receiving their commissions. This course gives a general military and academic background for all arms and services, and young officers on leaving Sandhurst then attend special arm courses to prepare them for their own arm, some attending technical courses at the Royal Military College of Science, Shrivenham (Berkshire) and at Cambridge University and a limited number of Arts courses at Oxford. Cadets may enter Sandhurst direct from school or after they have enlisted in the Army. Up to 40 scholarships are awarded each year on the results of a competitive examination held twice a year. University graduates may be accepted for direct regular commissions without previous service in the ranks.

The War Office also maintains a boarding school, Welbeck College, at Worksop, Nottinghamshire, where 150 boys are educated for two years between the ages of 16 and 18 years. These boys pass into the Royal Corps of Signals, Royal Army Ordnance Corps or the Royal Electrical and Mechanical Engineers. A few may be commissioned into the Royal Artillery, Royal Engineers and Royal Army Service Corps.

Regular commissions may also be granted to officers already serving on National Service commissions or on short service commissions. Candidates for National Service and short service commissions are trained at the Officer Cadet School, Mons Barracks, Aldershot. At this school the course, which consists of purely military training, lasts for four months. Entry to the school for short service commissions is either directly from civilian life or through the ranks.

Men wishing to enlist in the ranks must be British subjects between the ages of 17½ and 30 years, of good character, medically fit and able to pass an intelligence test. Those with certain trade qualifications may be accepted up to the age of 33 years. Men can sign on for 22 years (with the option of finishing their Colour Service at the end of six years or at the end of any consecutive period of three years thereafter, provided they give six months' notice in writing). Recruits may choose the corps in which they wish to serve and their wishes regarding trade training are met as far as possible.

On entry into the Army, other ranks are trained at the depots or with the training units of the arms or services for which they have been selected. This initial training consists of six weeks' basic military training common to all arms and services, and a further period of training which is special to the arm or service concerned. This latter training varies in length of time, e.g., infantry, four weeks; Royal Signals electronic technician, 22 weeks.

A boy can enlist in the Army as an apprentice tradesman, between the ages of 15 and 17; a junior leader, between the ages of 15 and 16½; and a drummer band boy, piper or tailor, between the ages of 15 and 17½ years.

After the age of 18 years, Army apprentice tradesmen serve nine years with the Colours and three years in the Reserve. Boys enlisted for training with junior leaders' units may serve either for nine years with the Colours and three years in the Reserve, or six years with the Colours and six years in the Reserve. The object of the junior leaders' units is to produce long-term regular warrant officers and senior non-commis-

sioned officers, and that of the apprentice schools is to produce warrant officer and non-commissioned officer tradesmen for the Regular Army, some of whom may become specialist commissioned officers.

Women may enlist into the Queen Alexandra's Royal Army Nursing Corps or into the Women's Royal Army Corps between the ages of 17½ and 33 years.

The Reserve Army

With a smaller Regular Army, the Reserve Army, consisting of the Regular Reserve, the Army Emergency Reserve and the Territorial Army, including the newly formed Territorial Army Emergency Reserve, will have an increasingly important part to play.

The *Regular Reserve* consists of officers and other ranks who have served in the Regular Army and are liable to be called out to reinforce the Regular Army in an emergency.

The *Army Emergency Reserve* has as its main function to provide essential communications and the technical and administrative services required on mobilisation by the Regular Army. It consists of specialist units and pools of skilled men—both volunteers and part-time National Service men—who can be called upon at short notice to fill gaps in regular units. A special category of the Army Emergency Reserve consists of units and individuals willing to be called for service with the Regular Army on the authority of the Secretary of State for War before a proclamation of mobilisation has been issued.

The *Territorial Army* consists of volunteer officers and other ranks (including women) and the Territorial Army Reserve of Officers; plus, until the end of National Service, officers and men carrying out the statutory obligation of 3½ years' part-time service. Its main role in the event of war would be the defence of the United Kingdom but some units might be needed overseas and all its members are liable for service in any part of the world when the Army reserve is called out by proclamation. Volunteers are required to attend annual camp and to carry out a minimum number of training periods. Selected units undergo civil defence training each year and attend a civil defence camp once every four years. While the military authorities are responsible for policy, training and discipline, local administration of the Territorial Army is carried out largely by county territorial and auxiliary forces associations.

The *Territorial Army Emergency Reserve* (the 'Ever-Readies') provided for in the Army Reserve Act, 1962, is designed to provide a trained reserve ready to supplement the Regular Army at short notice and to increase the deterrent power of the conventional Army in time of serious tension short of actual hostilities. Volunteers, who are paid a bounty and would receive Regular rates of pay on call-up, sign on for a period of one year, which is renewable, and are liable to be called up for a period not exceeding six months during any individual contract.

Cadet Forces

The *Combined Cadet Force* (CCF) and the *Army Cadet Force* (ACF) provide training on Service lines for boys between the ages of 14 and 18 years. The CCF provides training in schools in which education is continued to the age of 17 years or above. Cadets receive a general basic training and then specialised training in the Royal Navy, Army or Royal Air Force sections. Contingents are affiliated to regular units and establishments of the Services. The ACF is recruited from schools which do not raise contingents of the CCF, and from boys who have left school. Like all the pre-Service organisations, these forces provide citizenship and character training as well as

specifically military training. There is a training centre for the CCF and ACF at Frimley Park, Surrey.

THE ROYAL AIR FORCE

The Royal Air Force is administered by the Air Council, composed of the Secretary of State for Air, who is president, and seven other members. The Parliamentary Under-Secretary for Air is vice-president and the Permanent Under-Secretary of State for Air, who is a civil servant, is secretary of the Council. The Service members are the Chief of the Air Staff, who is responsible for strategic policy and the fighting efficiency of the RAF; the Vice-Chief of the Air Staff, responsible for inter-Service policy, operations, intelligence, liaison with other air forces, standardisation and ground defence; the Deputy Chief of the Air Staff, responsible for the preparedness for war of the RAF, for command, staff and air training, and for policy regarding future aircraft and weapons; the Air Member for Personnel; and the Air Member for Supply and Organisation.

Commands

The Royal Air Force is organised into commands administered by the Air Council:

At Home: Bomber, Fighter, Coastal, Transport, Flying Training, Technical Training, Maintenance and Signals Commands.

Overseas: The Near East Air Force (headquarters in Cyprus), Air Forces, Middle East (headquarters in Aden), the Far East Air Force (headquarters at Changi, Singapore) and Royal Air Force, Germany (Second Tactical Air Force, stationed in Germany as part of Britain's contribution to the NATO forces).

Aircraft and Equipment

The spearhead of the RAF is the force of *Valiant*, *Vulcan* and *Victor* four-engined jet bombers. Stocks of nuclear weapons are increasing, together with Bomber Command's ability to carry them. The Mark 2 versions of the *Vulcan* and *Victor* bombers can carry the *Blue Steel* propelled stand-off bomb, brought into service in 1962, and are capable of being refuelled in flight, giving them an increased range. The *Vulcan 2* is being modified to carry the United States air-launched ballistic missile *Skybolt* equipped with a British nuclear warhead (see p. 120). The V-bombers will thus continue to provide an effective deterrent under independent United Kingdom control during the next decade.

In addition to their strategic role, the V-bombers provide reconnaissance aircraft of great range and accuracy. The present reconnaissance force is composed mainly of *Valiants*, but these are being replaced by Mark 2 *Victors*.

The tactical force in Bomber Command is equipped with *Valiants*. The *Canberra* light bomber and reconnaissance aircraft continues to give good service in Germany and the Near East. A tactical strike reconnaissance aircraft of great versatility, the *TSR.2*, is being developed for Army support and other tactical operations. Both the *Canberra* and the *TSR.2* will be able to carry the French *AS30* guided bomb.

Air defence missile squadrons are now equipped with *Bloodhound 1*, a semi-active homing type, and orders have been placed for *Bloodhound 2*, a more advanced type which will have greatly improved performance and which will be air transportable for overseas reinforcement. Manned fighters will, however, continue to be needed to deal with manned aircraft, the stand-off bomber and radar-jamming aircraft, to prevent reconnaissance and to investigate unidentified movements. Fighter Command is largely equipped with *Lightning* and *Javelin* aircraft. Both carry the air-to-air guided missile

Firestreak. The *Lightning*, the RAF's first supersonic fighter, in service since 1960, is fitted with an electronic computer to aid bomber interception and is equipped for flight-refuelling to augment Fighter Command's capacity for overseas reinforcement.

The system of control and reporting, which has been built into a highly efficient organisation, is closely linked with the radar systems of Continental allies. A reconstructed radar chain now covers the whole of the United Kingdom. The high performance of the latest system makes it possible to have greatly improved cover with a smaller number of stations. Work has begun on a new high-performance radar system, which will include computers and data-handling equipment for the interception of supersonic aircraft. The Royal Air Force will command and operate the joint UK-US ballistic missile early warning stations being constructed in Yorkshire and Cumberland (see p. 120).

Coastal Command's long-range maritime reconnaissance force, which is committed to NATO, is wholly equipped with *Shackleton* aircraft. An improved version—the *Shackleton* Mark 3—is now in service, and earlier marks are being progressively modernised to an equivalent standard.

Transport Command is being re-equipped to provide increased mobility for the strategic reserves of both land and air forces. Its carrying capacity has increased three-fold over the past ten years. A *Comet 2* squadron formed in 1956—the first all-jet transport squadron in any air force—has proved very successful, and the first *Comet 4Cs* came into service in 1962. Two squadrons of *Britannia* aircraft are in service for long-range transport and *VC10* troop carriers are on order. The *Beverley* freighter, now in service, is a versatile aircraft which can lift large loads. The *Belfast* (formerly known as *Britannic*) aircraft is on order to supply the need for a strategic freighter able to carry large military loads quickly over long distances. A military version of the Armstrong Whitworth *Argosy* will be used as a tactical freighter for dropping parachutists as well as for normal movement of troops and stores. *Twin Pioneer* short-range aircraft are now in service and the *Avro 748* has been ordered as a close support aircraft.

Increasing use is being made of helicopters for operations in support of the Army in the field and for the Search and Rescue Organisation of Coastal Command, which in peace time also operates for the rescue of civilians involved in shipping accidents or other difficulties in coastal waters. The twin-rotor *Belvedere* and the gas-turbine engined *Whirlwind* are both in service. Production orders have been placed for a twin-engined version of the *Wessex*, with a greatly improved load capacity, particularly in tropical conditions and at high altitudes.

Basic flying training schools have been largely re-equipped with the *Jet Provost* trainer and an order has been placed for a training version of the *Lightning*; the *Gnat* trainer is replacing the *Vampire* for advanced jet training. The RAF was the first air force to adopt all-jet training.

Women's Royal Air Force

Women play an important part in the work of the Royal Air Force and of its reserve and auxiliary formations. The WRAF is an integral part of the Royal Air Force and its members train with and work alongside airmen in the same trades, serving both in the United Kingdom and overseas. Nursing services are provided by *Princess Mary's Royal Air Force Nursing Service*.

Recruitment and Training for the Regular Air Force

Pilots, navigators and air electronics officers are appointed to commissions in the General Duties Branch, the flying and executive branch of the RAF. They enter either

on the General List, with an assurance of a pensionable career to the age of 55, or on the Supplementary (Flying) List. Appointment to commissions on the General List may be obtained through a cadetship at the RAF College, Cranwell, Lincolnshire (pilots and navigators only), by entry as a university graduate, or under a special arrangement for other well-qualified entrants. The majority, however, are appointed to the Supplementary (Flying) List, either to short service commissions or to permanent commissions which offer a pensionable career initially to about the age of 38, with the possibility of leaving with a gratuity at an earlier stage and with opportunities of serving to the age of 55 either on the General List or on the Supplementary (Flying) List. Except for those entering through Cranwell, where the course lasts three years, flying training takes about 18 months for pilots and one year for navigators and air electronics officers.

Officers in ground branches are usually found from people in civil life, some of whom already hold professional qualifications, who enter the Royal Air Force on short service or permanent commissions. Short service officers may be selected for permanent commissions while in the Royal Air Force.

Permanent commissions may also be obtained through cadetships at the Royal Air Force Technical College, Henlow, Bedfordshire (Technical Branch), or the RAF College, Cranwell (Secretarial and Equipment Branches and RAF Regiment). University graduates are also eligible for permanent commissions under special conditions. Some technical cadets proceed after one year at Henlow to a three-year degree course at a university.

Applicants for enlistment for service as airmen or airwomen must be British subjects of good character and medically fit. Men between the ages of 17½ and 39 years may be enlisted as trained tradesmen if they can pass the appropriate trade test, or otherwise for training in any RAF trade for which they may be suitable, subject to vacancies. Enlistment is for one of specified periods within a maximum of 12 years (reckoned from the age of 18 or the date of attestation, whichever is the later). Subject to requirements, airmen may re-engage to serve for 22 years' reckonable service for pension and towards the end of that period may apply to continue to serve to the age of 55. A recruit training course of 8 weeks is followed by trade training where necessary and posting for duty.

Boys may enlist between the ages of 15 and 17 as apprenticed advanced tradesmen or between the ages of 15½ and 16½ as boy entrants for training in skilled trades. Apprentices and boy entrants enlist for 12 years or 9 years plus 3 years' reserve service from the age of 18.

Women between the ages of 17 and 39 may enlist for normal service as airwomen for periods of 3, 4, 5 or 6 years. Subject to requirements, women, like airmen, may subsequently extend their engagements to a maximum of 12 years, or re-engage to serve for 22 years' service reckonable for pension and towards the end of that period may apply to continue in the Service until the age of 55. Women between the ages of 17 and 52 may enlist for local service as airwomen for 2 years, which period may be extended by one or two years at a time. Women of at least 18 years of age and of the requisite educational standard may be selected for short service commissions. Opportunities exist for both short service officers and airwomen to gain permanent commissions.

Auxiliary and Reserve Forces

The *Royal Auxiliary Air Force* consists of three maritime headquarters units and a maritime support unit. The units are raised and maintained by local Territorial and Auxiliary Forces Associations and functionally controlled by Coastal Command. In

addition the Royal Auxiliary Air Force General List comprises officers specially earmarked for service in war appointments.

The *Royal Air Force Reserve* consists mainly of officers and airmen who have served in the Air Force. It includes the *Royal Air Force Volunteer Reserve*, whose members, like the officers, airmen and airwomen of the Royal Auxiliary Air Force, have a liability to carry out training on a part-time basis. University air squadrons (established at 17 universities) form part of the Royal Air Force Volunteer Reserve.

Ex-regular airmen with a liability for reserve service carry out this liability in Class E of the Royal Air Force Reserve. Part-time National Service men serve in Class H of the Royal Air Force Reserve or they may volunteer instead to join the Volunteer Reserve or the Royal Auxiliary Air Force.

Royal Observer Corps

The *Royal Observer Corps*, a predominantly civilian and voluntary organisation, now administered by Fighter Command, originated during the first world war and was officially established in 1925. Its present strength is over 15,000 men and women, who have the specialised tasks of identifying and reporting the movements of low flying aircraft, and of measuring and reporting on radioactivity in the event of nuclear attack. Eventually some 1,500 underground operation centres will have been built for the corps.

Air Training Corps

The *Air Training Corps* provides pre-Service training for boys between the ages of 14 and 20 years. Like the other pre-Service formations, it seeks to inculcate good citizenship as well as training for the RAF.

HOME DEFENCE

The second world war showed the importance of having trained and organised bodies of men and women ready to mitigate the effects of enemy air attacks on the civil population; and the Civil Defence Act, 1948, recognised that a permanent system of civil defence was essential to national safety. The development of nuclear weapons, whilst creating many new problems for civil defence and calling for much replanning, has increased rather than lessened the need for an efficient civil defence organisation. Civil Defence remains an integral part of the country's defence plan.

In the event of nuclear attack, the problems of rescue, fire-fighting and welfare operations would be greatly intensified by the presence of radioactivity, which would have to be detected and its extent and intensity measured. The first call would have to be met by the civilian services on the spot, and these would be supported by the armed forces in the country at the time, whether regular or reserve, which were not immediately required for combat operations. The Minister of Defence is charged with planning the part which the armed forces would play in home defence, and with co-ordinating the plans of the military authorities with those of the civil authorities.

The country's economic capacity limits the effort which can be devoted to home defence preparations; and the main defence objective must be to maintain the nuclear deterrent—not to prepare for war but to prevent it. In home defence the main task in peace time is to keep a local organisation in being as a framework for expansion if necessary, to provide training equipment and to proceed with essential research. The Government has declared its conviction that, if the deterrent were to fail, countless lives could be saved by civil defence preparations made in advance. An example of

this is the scheme which is being worked out with the local authorities for dispersing mothers and children and others in priority classes from major centres of population, should circumstances warrant it.

Organisation of Civil Defence

Civil defence planning in the United Kingdom is the responsibility of a number of ministers each of whom undertakes the duties which, in war time, would represent a natural extension of his peace-time functions. As the development of effective civil defence services involves much detailed planning at local level, the central Government has enlisted the assistance of local government authorities, of industry and commerce and of public bodies of many kinds, including voluntary organisations such as the Voluntary Aid Societies and the Women's Voluntary Service.

In addition to his direct responsibilities under the Civil Defence Act, 1948, the Home Secretary is responsible for co-ordinating the defence plans of all the civil agencies of the Government. The Secretary of State for Scotland is responsible for civil defence matters in Scotland.

In England and Wales the Home Secretary supervises the civil defence activities of the police and fire services, the Civil Defence Corps and the Industrial Civil Defence Service as well as such matters as shelter policy and the national air attack and fall-out warning and monitoring systems. Other Government departments have direct responsibility for the civil defence applications of the services which they control; for example, the Ministry of Health is responsible for the hospital and first-aid services, and the Post Office for telecommunications.

In Scotland the Scottish Home and Health Department deals with questions corresponding to those dealt with by the Home Office in England and Wales, and is responsible for such matters as the hospital and first-aid services.

In Northern Ireland the Civil Defence Act (Northern Ireland), 1950, places responsibility for civil defence matters on the Ministry of Home Affairs, which may arrange for other departments to undertake some functions on its behalf.

The co-ordination of civil defence planning in Great Britain necessarily involves much work by interdepartmental committees, on which all departments with civil defence responsibilities are represented, in order that plans and programmes may be constantly reviewed to take account of changes in the scale and nature of possible attacks.

England is divided into ten civil defence regions in charge of Regional Directors of Civil Defence, appointed by the Home Office, and there is also a Director of Civil Defence for Wales. Their duties include liaison with the armed forces and the planning of combined exercises. There is no corresponding regional organisation in Scotland, where planning is carried out centrally, although the country is divided into three zones for operational purposes.

The Civil Defence Services

To provide the personnel required in war for civil defence tasks, the following services, in which in times of peace only part-time service is required, are raised in Great Britain by voluntary recruitment of civilians, both men and women:

1. The Civil Defence Corps, which helps local and other authorities to carry out their civil defence functions.
2. The Industrial Civil Defence Service, which comprises civil defence units formed in industrial and commercial premises for the protection of the personnel of their undertakings and to assist the public civil defence services.

3. The Auxiliary Fire Service, which reinforces the fire services maintained by local authorities under the Fire Services Act, 1947. Auxiliary firemen are enrolled by the fire authorities (see p. 79) as members of the individual brigades, but the Fire Service would become a national organisation in time of war.
4. The National Hospital Service Reserve, limited at present to trained nurses and persons willing to be trained as nursing auxiliaries reinforces the National Hospital Service in England and Wales. In Scotland there is also an Ambulance Section of the Reserve to provide the additional manpower for the war-time operation of the Scottish Ambulance Service.

In Northern Ireland there are three main services: the Civil Defence Corps, the Auxiliary Fire and Rescue Service, and the Hospital Service Reserve.

Subject to restrictions regarding age and obligation to serve in the armed forces, recruits for all services are drawn from men and women volunteers who will undertake to train regularly.

Strengths in Great Britain on 31st March, 1962, were:

Civil Defence Corps	.. .. .	376,256
Industrial Civil Defence Service (on 31st October, 1961)	..	181,377
Auxiliary Fire Service	.. .. .	19,998
National Hospital Service Reserve	.. .. .	71,989

The Civil Defence Corps is recruited and organised by certain local authorities (mainly the councils of counties and county boroughs in England and Wales, or counties and large burghs in Scotland) in local divisions. The local divisions are subdivided into five sections as follows:

- Headquarters: control of civil defence operations, communications, reconnaissance (including scientific matters).
- Wardens: public guidance and control, reporting of damage and radio-active fall-out, organisation of immediate self-help measures, and the local control of life-saving operations.
- Rescue: rescue of trapped persons and rendering first aid to them.
- Ambulance and First Aid: first aid, conveyance of casualties to Forward Medical Aid Units and to hospital, and the organisation of stretcher-bearers.
- Welfare: escort and welfare of evacuees, care of homeless, assistance with billeting, rest centres, emergency cooking and feeding, public information centres.

In Scotland there is no separate Ambulance and First Aid section, ambulance services being provided by the National Hospital Service Reserve, and casualty collecting being a warden duty.

In Northern Ireland the Civil Defence Corps, which is organised directly by the Ministry of Home Affairs and not by the local authorities, consists of three sections only—Headquarters, Wardens and Welfare; the Ambulance Service forms part of the Hospital Service, and the Rescue Section has been integrated with the Auxiliary Fire Service to form the Auxiliary Fire and Rescue Service.

Training

Members of the Civil Defence Corps are required to undertake a standard training. Advanced training at two levels is offered, and to those prepared to assume the greater

responsibilities bounties of between £10 and £15 are paid. Those who take the standard training only will form a new Civil Defence Corps Reserve who will be called upon in emergency. Serving members who have not entered under these regulations, which were introduced in July 1962, will have two years in which to undergo training and tests.

Units of the Industrial Civil Defence Service are trained and organised in much the same way as the Civil Defence Corps and in war would operate in close association with it.

Civil defence instructors are trained either at one of the three Home Office Civil Defence Schools or locally under arrangements made by local authorities, in accordance with directions given by the Home Office or the Scottish Home and Health Department. Courses and studies for senior officials are held at the Civil Defence Staff College at Sunningdale, Berkshire, and in Scotland, at the Civil Defence School at Taymouth Castle, Perthshire.

Auxiliary firemen are trained by officers and men of the regular brigades, who themselves receive special training in emergency fire-fighting at the Home Office Fire Service Training Centre at Moreton-in-Marsh, Gloucestershire. They are encouraged to gain practical experience of fire-fighting by performing stand-by duty at fire stations to enable them to respond, with regular members of the brigade, to calls to fires. Exercises are also held, involving the control and operation of large numbers of pumping and other fire-fighting appliances. New regulations similar to those for the Civil Defence Corps were introduced in the Auxiliary Fire Service in July 1962.

The Police

In time of war the police would continue to be responsible for the prevention of crime, for the maintenance of law and order and for the control of essential service routes. They are also likely to have duties in connection with evacuation, care of the homeless and other specialised civil defence tasks. In all these duties they would have the aid of the Special Constabulary.

Role of the Armed Forces

There are two main ways in which the fighting Services within the country can render assistance: by helping the civil authorities to maintain control; and by the direct employment of units on various tasks such as aid to the police in the maintenance of law and order and traffic control, aid to the fire service, assistance in the reception and care of the homeless, in the treatment and evacuation of casualties and in the clearance of radioactive fall-out zones, the provision of guards, the maintenance of road, rail and water communications, light rescue, reconnaissance and the provision and running of camps.

All units of the Regular and Reserve Armies are trained in peace time for the civil defence tasks they may be expected to perform in war. In addition, a number of men of the Royal Air Force have been trained in emergency fire-fighting operations at Home Office training centres to enable them to serve as firemen in a National Fire Service.

There is close liaison in peace time between the civil and military authorities at all levels. Joint exercises are continually being held and everything possible is being done to align the civil and military chains of command.

SOCIAL WELFARE

STATE AND VOLUNTARY SERVICES

In Britain the State is now responsible, through either central or local government authorities, for a range of services covering subsistence for the needy, education and health services for all, housing, employment or maintenance, the care of aged or handicapped persons, the care of children, the nutrition of mothers and children, and sickness, maternity and industrial injury benefits, widow's and retirement pensions and family allowances. Public authorities in the United Kingdom are spending over £4,000 million a year on social services; that is, about £80 a year per head of the population.

Voluntary organisations, especially the Churches, were the pioneers of nearly all the social services. They provided schools, hospitals, clinics, dispensaries, and social and recreational clubs before these were provided by the State. They made themselves responsible for the welfare of the very young and the very old, the homeless and the handicapped, before it was generally accepted that the whole community had a responsibility towards these people. Where the services and the facilities they provided were adequate, they have been encouraged to continue. The State now supplements these voluntary services and provides financial assistance, sees that essential services are brought within the reach of every citizen, and ensures that the necessary standards are maintained.

Many voluntary social services surround and supplement the State services. The two types are complementary, not competitive, and they merge into each other. State services often work through voluntary agencies specially adapted to serve individual or special needs. The officers of central and local government, in carrying out their duties, co-operate with the workers of many voluntary social service societies, while the institutional provision made by the State and by local authorities for the care of the chronic sick and the aged is supplemented by voluntary homes of various types for the care of the sick and elderly, most of whom receive State pensions or benefits.

The Charity Commission, a Government department, gives free advice to trustees of charities, making schemes to modify their trusts and purposes when necessary. The Commission was reconstituted by the Charities Act, 1960, which gave it additional powers in order to meet modern needs of promoting co-operation between charities and State services and directed the establishment of a Central Register of Charities in which, for the first time, information about all the charities in England and Wales is being gathered together.

Voluntary Organisations

The number of voluntary charitable societies and institutions in Britain runs into thousands; they range from national organisations to small individual local groups.

Most organisations, however, are members of larger associations or are represented on local or national co-ordinating councils or committees. Some are chiefly concerned with giving personal service, others are mainly interested in the formation of public opinion and exchange of information.

Organisations concerned with personal and family problems and misfortunes include the voluntary family casework agencies, of which the Family Welfare Association, working mainly in London, is the best known; marriage guidance centres affiliated to the National Marriage Guidance Council; and the Family Service Units.

Voluntary service to the sick and disabled in general is given by the British Red Cross, the St. John Ambulance Brigade and the St. Andrew's Ambulance Association, but a number of societies exist to help sufferers from particular disabilities, such as the Royal National Institute for the Blind, the Royal National Institute for the Deaf, the National Association for Mental Health, and the constituent members of the Central Council for the Disabled.

Bodies working on a national scale whose work is specifically religious in inspiration include the Salvation Army, the Church Army, Toc H, the Committee on Social Service of the Church of Scotland, the Church of England Children's Society, the Church of England Council for Social Work, the Young Men's Christian Association, the Young Women's Christian Association, the Society of Friends, the Crusade of Rescue, the Society of St. Vincent de Paul, the Catholic Marriage Advisory Council and the Jewish Board of Guardians.

A wide range of voluntary personal service is given by the Women's Voluntary Service, which 'lends a hand' in every kind of practical difficulty, brings 'meals on wheels' to housebound invalids and old people, minds children, and visits the sick in hospital, as well as doing relief work in emergencies.

A central link between different voluntary organisations and official bodies concerned with social welfare is provided by the National Council of Social Service, which brings together most of the principal voluntary agencies for consultation and joint action, either as a whole or in groups of organisations concerned with particular aspects, such as youth work and old people's welfare, in England and Wales; by the Scottish Council of Social Service and the Northern Ireland Council of Social Service. It was the National Council of Social Service which set up the Citizens' Advice Bureaux, of which there are now about 430 in the United Kingdom. The role of the bureaux is to give explanation and advice to the citizen who is in doubt about his rights or who does not know about the State or voluntary service which could help him.

Social Workers

While the voluntary worker giving full-time or part-time service has done pioneer work in many of Britain's social services and continues to play an essential part, social services of all kinds increasingly depend for their operation chiefly on the professional social worker, that is, the full-time salaried worker trained in the principles and technique of social work. Training for many forms of social work consists of a basic university degree, diploma or certificate course in social science followed by a university course in applied social studies or specialised training for a particular service. The latter is sometimes organised by the profession concerned. The Health Visiting and Social Work (Training) Act, 1962, provides for a Council for Training in Social Work to be set up to promote the training, in the first instance, of workers in the local authority health and welfare services and similar services run by voluntary organisations. Full-time general courses in social work (lasting two years) are now being provided by eight colleges of further education.

Voluntary organisations were the pioneers in the employment and training of social workers, but Government departments and local authorities now employ a considerable number of trained social workers, for example, in child care, youth work, almoning, psychiatric social work, and the probation service.

SOCIAL SECURITY

National Insurance, Industrial Injuries Insurance, Family Allowances and National Assistance together constitute a comprehensive system of social security in the United Kingdom which ensures that in no circumstances need any one fall below a certain minimum standard of living.

The Ministry of Pensions and National Insurance administers the first three of these services in Great Britain; in Northern Ireland they are administered by the Ministry of Labour and National Insurance. National Assistance is administered by the National Assistance Board in Great Britain, and in Northern Ireland by the National Assistance Board for Northern Ireland. Pensions and welfare services for war pensioners and their dependants are the responsibility of the Ministry of Pensions and National Insurance throughout the United Kingdom.

Appeals relating to claims for insurance benefits, family allowances or war pensions, or to applications for assistance, are not decided by the Ministry or the Board but by independent authorities appointed under the Acts.

Although the development of public provision for social security in Britain can be traced back for several centuries (the Poor Relief Act of 1601 may be regarded as its starting point in England and Wales), the modern system of comprehensive provision is a creation of the twentieth century. Non-contributory old age pensions were introduced in 1908, and the first contributory pensions for old people, widows and orphans in 1926. A contributory National Health Insurance Scheme was begun in 1912, and in the same year a scheme of unemployment insurance was introduced which in 1920 was extended to cover the great majority of employed persons. By the beginning of the second world war the social security services in Britain were among the best in the world, but they lacked co-ordination by the very fact of their piecemeal development, and not everyone came within their scope. In the immediate post-war years a series of Acts introduced the present comprehensive system which became fully operative on 5th July, 1948. Adjustments have been made by a number of subsequent Acts.

Family allowances and national insurance benefits or allowances, other than maternity, unemployment or sickness benefit, are included in the taxable income on which income tax is assessed. On the other hand, various income tax reliefs and exemptions are allowed on account of age or liability for the support of dependants.

Reciprocity

The national insurance, industrial injuries and family allowances schemes of Great Britain and those of Northern Ireland and the Isle of Man operate as a single system. Northern Ireland and the Isle of Man as well as Great Britain are party to most of the agreements with other countries. Reciprocal agreements on national insurance, industrial injuries and family allowances are in operation with Belgium, Denmark, Finland, Jersey, Norway, Western Germany and Yugoslavia. Agreements with France, Israel, Italy, Luxembourg, Malta, the Netherlands, Sweden, Switzerland and Turkey cover national insurance and industrial injuries insurance. With Australia, Canada and New Zealand there are agreements on national insurance and family allowances. There is an agreement with Guernsey on family allowances only, with

Cyprus on national insurance, and an agreement with the Irish Republic which covers national insurance and contains some industrial injuries provisions relating to seafarers. Other agreements are under negotiation.

FAMILY ALLOWANCES

Family allowances have been provided by the State since August 1946, under the Family Allowances Act, 1945, in Great Britain and by the Family Allowances Act (Northern Ireland), 1945, in Northern Ireland. Just over $5\frac{1}{2}$ million allowances are being paid in Great Britain to over $3\frac{1}{2}$ million families with two or more children and over a quarter of a million in Northern Ireland to over 116,000 families. An allowance is paid for each child other than the first or only child below the age limits. The age limits are 15 years for children who leave school at that age, 16 years for certain handicapped children, and 18 for children who remain at school or are apprentices. The rate of the allowance is 8s. a week for the second child below the age limits and 10s. a week for the third and each subsequent child.

Family allowances are paid from the Exchequer and their object is to benefit the family as a whole; they belong to the mother, but may be paid either to the mother or to the father. There is no insurance qualification for title to the allowances, but there are certain residence conditions.

The corresponding scheme in Northern Ireland makes similar provision for family allowances.

NATIONAL INSURANCE

The National Insurance Act, 1946, came into full operation on the 5th July, 1948. It has been amended by the National Insurance Acts, 1949-60, and the Family Allowances and National Insurance Acts, 1952 to 1961. The Acts apply, in general, to everyone over school-leaving age living in Great Britain. There are similar schemes in Northern Ireland and the Isle of Man.

The National Insurance scheme provides benefits in specified contingencies to insured persons who have paid the required contributions. The benefits are paid for partly by insured persons' contributions, partly by the contributions of employers in respect of their employees, and partly by a contribution made by the Exchequer out of general taxation. Up to April 1961 the rates of contributions and benefits were standard amounts varying only with the sex and insurance class of the insured person (with lower rates for those under 18). In April 1961 the scheme was modified by the introduction of the graduated scheme. This applies to all adult employed persons earning a minimum of £9 a week and not 'contracted out' of the graduated scheme and provides for them to earn additions to flat-rate retirement pension (but not to any other benefit) in return for graduated contributions, related to earnings, paid normally in addition to the flat-rate contribution. Employees whose job provides them with a secure occupational pension at least as good as the maximum State graduated pension can be 'contracted out' of the scheme. About $4\frac{1}{2}$ million have been contracted out.

The Insured Population

The National Insurance scheme applies, in general, to everyone over school-leaving age and under pensionable age. Contributors are divided into three classes:

Class 1. Employed persons. Those who work for an employer under a contract of service or are paid apprentices—about $22\frac{1}{2}$ million. This class falls into two

groups: those who are, and those who are not, participating in the graduated pension scheme.

Class 2. Self-employed persons. Those in business on their own account and others who are working for gain but do not work under the control of an employer—nearly $1\frac{1}{2}$ million.

Class 3. Non-employed persons. All persons insured who are not in class 1 or 2—just over a quarter of a million.

This general classification is subject to certain modifications, made by regulations, to meet special circumstances. Married women engaged only in their own household duties are, in general, provided for by their husbands' insurance and need not pay contributions. They can choose to pay contributions provided they were insured persons when they married. (Those who were already married when the scheme began to operate on 5th July, 1948, cannot be insured in their own right unless they were then insured under the old scheme and continued to pay contributions as non-employed persons, or unless they have since taken up paid work.) Employed married women may choose whether to pay separate contributions themselves or to rely on the cover provided by their husbands' contributions, which make them eligible for maternity and home confinement grants, retirement pension at lower rate, widow's benefit and death grant, but they must pay graduated contributions if they are employed in a participating employment and their earnings are over £9 a week. Students receiving full-time education and unpaid apprentices need not pay contributions. Up to the age of 18, contributions are credited to them. Over that age they may, if they wish, pay as non-employed persons (class 3) and thus safeguard their title to widow's benefit and to retirement pension at full rate. Self-employed and non-employed persons whose income is not more than £208 a year can apply to be exempted from liability to pay contributions.

Contributions

The main weekly rates of flat-rate contribution (including the National Health Service contribution which for convenience is paid with it, though the two services are separately administered) in force since July 1961 are shown in Table 7.

Contributions are normally paid on a single contribution card by national insurance stamps bought from a post office. It is the employer's responsibility in the first place to see that the class 1 contributions are paid, but he can deduct the employee's share from his or her wages. The self-employed and non-employed must stamp their own cards. Contributions are usually 'credited' for weeks of unemployment, sickness or injury, or if widow's benefit is being paid.

Graduated contributions are payable by employed persons earning over £9 a week who are not contracted out, at the rate of approximately $4\frac{1}{4}$ per cent of their weekly pay between £9 and £15. The employer pays the same amount. The contributions are collected through the same machinery as is used to collect Pay As You Earn (deduction at source) income tax.

An insured person ceases to be liable for national insurance contributions at the age of 70 for men, 65 for women, or when he retires, or is deemed to have retired, from regular employment after reaching minimum pension age (65 for men, 60 for women), whichever is the earlier. If such a person does any work as an employed person thereafter, he must pay an industrial injuries contribution; his employer's liability remains the same as shown in Table 7.

TABLE 7
WEEKLY NATIONAL INSURANCE AND NATIONAL HEALTH SERVICE CONTRIBUTIONS

	MEN(a)			WOMEN(a)		
	National Insurance (b)	Health Service	Totals	National Insurance (b)	Health Service	Totals
	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
CLASS 1						
Employed persons contracted out of the graduated pension scheme:						
Paid by employee ..	9 5½	2 8½	12 2	7 5½	2 0½	9 6
Paid by employer ..	9 2½	7½	9 10	7 1½	7½	7 9
TOTALS	18 8	3 4	22 0	14 7	2 8	17 3
Employed persons not contracted out:						
Paid by employee ..	7 10½	2 8½	10 7	6 7½	2 0½	8 8
Paid by employer ..	7 11½	7½	8 7	6 8½	7½	7 4
TOTALS	15 10	3 4	19 2	13 4	2 8	16 0
CLASS 2						
Self-employed persons	11 4	2 10	14 2	9 4	2 2	11 6
CLASS 3						
Non-employed persons	8 7	2 10	11 5	6 7	2 2	8 9

(a) Boys and girls under 18 years of age contribute at lower rates.

(b) Including, for class 1, the industrial injuries insurance contribution of 7d. from employee and 8d. from employer for a man, and 4d. from employee and 5d. from employer for a woman.

Benefits

The main contingencies in which the scheme provides payments to contributors are: unemployment (if normally working for an employer), sickness (if normally working for an employer or self-employed), confinement and the weeks immediately before and after (for women normally working for an employer or self-employed and paying national insurance contributions at the full rate). Widows receive help in the first 13 weeks after bereavement and subsequently while they have young children or if they have reached the age of 50 when widowed or when their children have grown up; there are two kinds of allowances in respect of orphan children where a widow's pension is not payable; and pensions are paid to people who have reached 65 (60 for women) and who, if under 70 (65 for women), have retired from regular work. The scheme also provides cash grants for three expensive contingencies—the birth of a

child, a confinement at home (or elsewhere, otherwise than at public expense), and a death (though not for the death of someone already over minimum pension age when the scheme started).

For most of the benefits there are two contribution conditions. First, before benefit can be paid at all, a minimum number of contributions must actually have been paid since entry into insurance; secondly, the full rate of benefit cannot be paid unless a specified number of contributions have been paid or 'credited' over a specified period. There are special rules to help a widow who does not become entitled to a widow's pension at widowhood or when her children have grown up, to qualify for sickness or unemployment benefit in the period before she can have established or re-established herself in insurance through her own contributions; there are also provisions to help divorced women who were not paying contributions during their marriage.

Amounts

The basic standard rate of the majority of benefits is now £2 17s. 6d. a week for men and women alike, which may be reduced if insufficient contributions have been paid, but is not affected by other unearned income or the previous level of earnings. Earnings made while the benefit is in payment, however, may cause its reduction or withdrawal: unemployment benefit cannot be paid to a person earning more than a specified amount from a secondary occupation; widows, and retirement pensioners under the age of 70 (65 for women), have their pensions reduced in step with earnings over certain specified amounts; sickness benefit, though not affected by continued payment of wages, is terminated if the person receiving it does more than a negligible amount of paid work. Exceptions to the basic standard rate are the higher rate of £4 a week payable to widows, without regard to any earnings, during the first 13 weeks after bereavement, the increased retirement pension payable to someone who has continued at work beyond minimum pension age, and the lower rate of £1 19s. a week unemployment or sickness benefit payable to a married woman who is not separated from her husband and unsupported by him or else maintaining an invalid husband, i.e. who is the second not the first breadwinner in the household. The standard rate of retirement pension for a woman on her husband's insurance is £1 15s. a week. Standard increases are payable for dependants at the rate of £1 15s. for an adult (generally a wife), 17s. 6d. for the first or only child under the family allowances age limits and 9s. 6d., over and above any family allowances payable, for other children. However, the amounts payable to widows for their children are larger: £1 5s. for the first or only child and 17s. for others.

Graduated contributions add 6d. a week to retirement pension for each £7 10s. of graduated contributions paid by a man, with the matching £7 10s. paid by his employer, and for each £9 paid by a woman, with the matching £9 paid by her employer.

The allowance provided for a child who has lost both parents (one of whom must have been insured under the National Insurance Acts) is a guardian's allowance of £1 12s. 6d. a week. It is paid to the person in whose family a child is, for the time being, included. For certain orphan children a child's special allowance is provided: it is payable to a woman whose marriage has been dissolved or annulled, on the death of her former husband, for any children of that marriage below the family allowance age limits to whose support he has been contributing. The weekly rate of the allowance is £1 5s. for the first or only child and 17s. for each other child.

The rates of grants are varied: £14 maternity grant is payable for a confinement and a further grant for each additional child born at the same confinement living 12 hours after its birth; £6 is paid for a confinement at home or elsewhere other than at

public expense; and £25 death grant on the death of an adult (less for a child, or for an adult who was within 10 years of minimum pension age when the scheme started).

All these amounts have been increased since the scheme came into operation; the last increases were in April 1961.

Duration

In general, National Insurance payments are paid as long as the situation requiring them lasts. However, sickness benefit cannot be paid for more than a year if less than 156 contributions have been paid (possible within three years for a contributor continuously at work) and unemployment benefit is payable in the first instance for 30 weeks, after which it may be continued for up to 19 months in all, according to the person's record of contributions paid as against unemployment benefit drawn in recent years. Maternity allowance begins 11 weeks before the expected week of confinement and ends after the sixth week following the expected week or the actual confinement if this is later.

Similarly, widowed mother's allowances at the full rate cease when the children reach family allowance age limits, though a mother can continue to receive £2 17s. 6d. a week for herself while she has living with her a son or daughter above the age limits but under 18. The widow's pension payable to the childless widow, provided she is over 50 (and had been married at least three years when her husband died), and the similar pension normally paid to the widowed mother who has reached 50 when her widowed mother's allowance ends, continues until she has reached minimum pension age and retired, or at most till age 65. If she has satisfied the conditions she then becomes entitled to a retirement pension.

NATIONAL INSURANCE (INDUSTRIAL INJURIES)

The Industrial Injuries Insurance scheme, which, in July 1948, replaced the Workmen's Compensation scheme (first introduced by the Workmen's Compensation Act of 1897), provides benefits for personal injuries caused by accidents arising out of, and in the course of, employment, and for prescribed diseases due to the nature of employment. It covers practically everyone in class 1 of the National Insurance scheme and certain others. Like the National Insurance scheme, the Industrial Injuries scheme is financed partly from contributions (see Table 7) and partly from taxation. The relevant Acts are the National Insurance (Industrial Injuries) Acts, 1946 to 1961. Similar cover against industrial injuries and diseases in Northern Ireland is provided by the National Insurance (Industrial Injuries) Acts (Northern Ireland), 1946 to 1962.

Benefits

Injury Benefit

Injury benefit for an adult is £4 17s. 6d. a week plus £1 15s. for an adult dependant and 17s. 6d. for the first or only child under the family allowances age limits and 9s. 6d. for each other eligible child, in addition to any family allowance payable. It is paid when the insured person is incapable of work as a result of an industrial accident or prescribed disease, and payment can continue for a maximum of 26 weeks beginning on the date of the accident or development of the disease.

Disablement Benefit

Disablement benefit may be paid if, after the payment of injury benefit has ceased, there remains some loss of physical or mental faculty as the result of the industrial accident or prescribed disease. The amount depends on the extent of the disablement

as assessed by a medical board; it varies from £4 17s. 6d. for 100 per cent disablement to 19s. 6d. a week for 20 per cent disablement. For disablement of less than 20 per cent a gratuity is normally paid, ranging up to £320.

In certain circumstances disablement benefit may be supplemented as follows: unemployability supplement, at the weekly rate of £2 17s. 6d.; constant attendance allowance of up to £2 weekly, or at a special rate of £4 a week in exceptionally severe cases; a special hardship allowance of up to £1 19s. for a person who is unfit to return to his regular job or work of an equivalent standard; and hospital treatment allowances which raise the benefit to that for a 100 per cent assessment during hospital treatment for the industrial disability. Increases of benefit for dependants are payable with unemployability supplement and hospital treatment allowance.

Death Benefit

If the accident or disease results in the insured person's death, death benefit may be paid to the dependants.

For widows living with their husbands at the time of death, a pension of £4 a week is payable for the first thirteen weeks of widowhood. Thereafter, if the widow (1) is entitled to a child's allowance or was over the age of 40 on ceasing to be so entitled, or (2) was over 50 years of age or was permanently incapable of self-support at the time of her husband's death, or (3) is not entitled to child's allowance, but has residing with her a young person under the age of 18 who was or could be treated as being in her late husband's family, or (4) is over 40 years of age when (3) ceases to apply, or (5) is pregnant by her late husband, she is entitled to a pension of £3 4s. a week. If none of these conditions is satisfied, the widow may receive a pension of £1 a week.

In addition, allowances are paid for children under the family allowances age limits. For widows, these allowances are normally at the rate of £1 5s. a week for the first or only child and 17s. a week for each other child. For other beneficiaries, the rate is 17s. 6d. and 9s. 6d. a week respectively.

Certain other dependants, such as parents and other relatives, may be entitled to pensions, allowances or gratuities. The amounts vary with the closeness of the relationship and the extent to which the dependants were maintained by the deceased during his lifetime.

NATIONAL ASSISTANCE

The National Assistance Act, 1948, abolished the existing Poor Law and, in place of the various services for the relief of need previously provided from both central and local government funds, established for the first time a comprehensive State service of financial assistance according to need which is administered by the National Assistance Board.

Application to the Board for financial assistance can be made, with certain exceptions relating to persons in full-time work or involved in a trade dispute, by anyone over the age of 16 who is in need. The need for assistance is decided by reference to general standards (which are amended from time to time) laid down in regulations approved by Parliament. These regulations contain rules for estimating the requirements of the person or family group for whom assistance is to be provided and rules for the treatment of their resources, whether of income or capital (for instance, national insurance benefits and family allowances are taken fully into account, while some part of other specified resources may be disregarded).

The regulations make special provision for higher rates for blind persons and certain tuberculous persons, and also allow the Board's officer to adjust the amount

payable to suit the particular circumstances of every case. The help given is in this way related directly to the needs of the individual or family. There is a right of appeal if the person is dissatisfied with the officer's decision.

There are few conditions attached to the grant of assistance, but help given to able-bodied men or women of working age will normally be conditional on their registering for work at an employment exchange of the Ministry of Labour; the assistance will then be paid at the exchange. Otherwise assistance is normally received as a weekly cash payment at a post office.

WAR PENSIONS AND RELATED SERVICES

Pensions to persons disabled or bereaved through the wars are paid under Royal Warrants and other instruments administered by the Ministry of Pensions and National Insurance.

The current basic pension for 100 per cent disablement for a private soldier is £4 17s. 6d. a week, but the amount varies according to rank and the degree of disablement. The latter is assessed by comparing the disabled person with a normal healthy person of the same age and sex, without taking earning capacity into account. Allowances for a wife and children are paid in addition to the basic pension and there are various supplementary allowances, the main ones being for unemployability (£3 3s. a week), constant attendance (up to £2 and, exceptionally, £4 a week), comforts (10s. or £1 a week), and lowered standard of occupation (up to £1 19s. a week). There is an allowance (at rates varying between 5s. and 15s. a week) for persons drawing disablement pensions who are aged 65 or over and whose assessment is 40 per cent or more.

Both the basic disablement pension and the supplementary payments are free of income tax, and children's allowances are paid in addition to any allowance payable under the Family Allowances Acts.

Pensions are also paid to war orphans and to war widows. The standard rate of pension for war widows of private soldiers is £3 16s. a week, an addition being made for higher rank, and they also receive allowances for their children (£1 9s. for each child), and, in certain cases, an allowance for rent (up to £1 9s. a week). There is an additional allowance of 10s. a week for widows aged 70 or over. Parents or other relatives who were dependent on a person whose death resulted from the wars may receive pensions if they are in financial need.

The Ministry of Pensions and National Insurance maintains a welfare service for war pensioners, with a special branch for war orphans, and war pensioners have priority (except over more urgent cases) for treatment of their war disabilities in National Health Service hospitals.

Many voluntary associations, such as the British Legion and other ex-Service organisations, give financial aid and personal service to disabled ex-Service men and women and their families. The Ministry and these bodies work in co-operation.

HEALTH

The concern of the State with the nation's health is chiefly a development of the years since the passing of the Public Health Act of 1848. The second half of the nineteenth century was notable for the growth of the environmental or public health services, such as provision of pure water, sewerage, disposal of refuse and cleaning of streets, and the first half of the twentieth century for the development of publicly provided personal health services, as distinct from environmental services, culminating

in the introduction in 1948 of a comprehensive National Health Service available to every citizen. The scientific discoveries, especially of new drugs, and the improved services of the last fifty years, including maternity and child welfare, school health services and school meals, are reflected in declining mortality rates (see p. 11.) and improved physique.

PUBLIC HEALTH

The Public Health Act of 1936 brought up to date and consolidated preceding Acts; it constitutes the present basic public health code in England and Wales. Local authorities are mainly responsible for its implementation and they have extensive powers for the making and administration of by-laws relating to matters of public health. The local authorities chiefly concerned are the councils of county and non-county boroughs, urban and rural district councils, and, to a limited extent, parish councils. Local authorities also have power to secure clean air by establishing smoke control areas (see p. 188).

Public health services in Scotland and in Northern Ireland have developed on much the same lines as in England and Wales, although they are based on separate Acts and there is a different allocation of services between the various types of local authority. The Public Health (Scotland) Act, 1897, and the Burgh Police (Scotland) Act, 1892, constitute the basic legislation for Scotland. The local authorities concerned are the councils of counties and burghs. In Northern Ireland the councils of county and non-county boroughs and urban and rural district councils are mainly responsible for administering the Public Health Acts (Northern Ireland), 1878-1955.

Control of Infectious Diseases

Local authorities are responsible for the investigation of outbreaks of infectious diseases by their Medical Officers of Health, and for disinfection and other measures advised by them for preventing the spread of infectious diseases in the area. They are also responsible to the Ministry of Health (or the Welsh Board of Health or the Secretary of State for Scotland or the Ministry of Health and Local Government for Northern Ireland) for recording notifications of the prescribed infectious diseases.

The same departments have a general responsibility for supervising the operation of health control at seaports and airports, the primary object of which is to prevent the introduction of infectious disease into the country. This health control is undertaken by health authorities using the services of medical officers, public health inspectors, rodent inspectors and others.

Pure Food

The purity, hygiene and description of food are controlled by legislation now consolidated for England and Wales in the Food and Drugs Act, 1955, for Scotland in the Food and Drugs (Scotland) Act, 1956, and for Northern Ireland in the Food and Drugs Act (Northern Ireland), 1958. In England and Wales the Act and regulations made under it are, in general, carried out and enforced by food and drugs authorities (i.e. county councils, county borough councils and, generally, the larger borough and urban district councils) in relation to composition, adulteration and description, and by local authorities (i.e. county borough, borough, urban district and rural district councils) in relation to purity and hygiene; the Ministry of Health and the Ministry of Agriculture, Fisheries and Food are the central departments responsible for advising and for making regulations under the Act. Premises where food for sale for human consumption is prepared, sold or stored are required to conform to certain hygienic

standards. Authorised officers of food and drugs authorities and of local authorities are empowered to take samples of any food for sale for human consumption for analysis or for bacteriological or other examination. Special regulations are in force for certain foods such as milk, meat and ice-cream.

In Scotland the local authorities chiefly concerned are the councils of counties and large burghs; the central department is the Scottish Home and Health Department.

In Northern Ireland administration is in the hands of the county and county borough health authorities, the central department being the Ministry of Health and Local Government.

THE NATIONAL HEALTH SERVICE

The Acts setting up the National Health Service—the National Health Service Act, 1946, the National Health Service (Scotland) Act, 1947, and the Health Services Act (Northern Ireland), 1948—came into force simultaneously on 5th July, 1948.

The object of the National Health Service Act, 1946, is 'to promote the establishment in England and Wales of a comprehensive health service designed to secure improvement in the physical and mental health of the people of England and Wales and the prevention, diagnosis and treatment of illness, and for that purpose to provide or secure the effective provision of services'. The National Health Service (Amendment) Act, 1949, and the National Health Service Acts, 1951 to 1961, made some modifications in the scheme for Great Britain and provided for charges to be made for certain parts of the service, which is otherwise available free of charge to all according to medical need without regard to any insurance qualification, although all national insurance contributors are required to pay a separate weekly national health contribution under the National Health Service Contribution Acts, 1957 to 1961 (see Table 7).

Reciprocity

Arrangements have been made between Britain and Denmark, New Zealand, Norway, Sweden and Yugoslavia under which nationals of these countries may receive treatment under the National Health Service and British nationals may receive health benefits under the legislation of those countries. Visitors from other countries who come to Britain for treatment are expected to pay for it, but treatment can be given under the emergency provisions of the National Health Service to any who have the misfortune to fall ill during a visit to Britain.

Health Service Administration in Great Britain

In England and Wales the Minister of Health has direct responsibility for the provision on a national basis of all hospital and specialist services, including those for mental disorder. He has power to conduct, or assist others to conduct, research work into matters relating to the causation, prevention, diagnosis or treatment of illness or mental disorder, and he provides a public health laboratory service and a blood transfusion service. He has indirect responsibility for the general practitioner services and local health authority services. He is advised by the Central Health Services Council and by standing advisory committees on various aspects of the service.

The hospital and specialist services are administered through regional hospital boards and hospital management committees and, in the case of teaching hospitals, by boards of governors. The hospitals are administered in groups; these consist sometimes of several formerly independent hospitals and sometimes of one. There are nearly 400 such groups under the control of hospital management committees, which are in turn

under the control of 15 regional hospital boards. The regions are arranged so that the hospital and specialist services can conveniently be associated with a university having a school of medicine.

The members of a hospital management committee are appointed by the appropriate regional hospital board. The committees, by their constitution, reflect the communities concerned, for they usually include not only medical practitioners but members of local authorities, trade unionists and others. The regional hospital boards are appointed by the Minister of Health and are similarly constituted. The boards of governors of teaching hospitals are appointed by the Minister, a proportion of the members being nominated by the teaching faculty of the university, the regional hospital board and the medical and dental teaching staff. All appointments to hospital management committees, regional hospital boards and boards of governors are honorary. Medical and dental schools are not under the control of the Minister; but it is his responsibility to provide clinical facilities for the training of medical students. The universities are responsible for the provision of teaching.

The general medical, dental, pharmaceutical and supplementary ophthalmic services are administered by 138 executive councils, each covering the area of a county or county borough. In a few cases two areas are combined under one council. Each council has an ophthalmic services committee responsible for administering the supplementary ophthalmic service. Doctors, dentists and pharmacists are represented on the executive councils and each profession also forms a local committee. Councils of counties and county boroughs are the 146 local health authorities in charge of local health services.

In Scotland the Secretary of State for Scotland is the responsible minister; 31 county councils and 24 town councils of large burghs are the local health authorities; hospital and specialist services are administered by five regional hospital boards appointed by the Secretary of State, assisted by 83 boards of management (the equivalent of hospital management committees in England); and there are 25 executive councils, each serving the area of one or more local health authorities. The teaching hospitals in Scotland come under the control of the regional hospital boards, but special medical education committees consider matters relating to medical teaching. The Scottish Health Services Council and the standing advisory committees advise the Secretary of State and keep closely in touch with the Central Health Services Council on common issues.

The Northern Ireland Health Services are described separately on page 155.

Health Service Finance

Annual expenditure on the National Health Service in the United Kingdom amounts to about $3\frac{1}{2}$ per cent of the total national income. The greater part of the cost falls on the Exchequer, to be met from general taxation, and a small part is met from local rates. Other income is derived from the national health contribution paid with the national insurance contribution and from the payments for those parts of the service for which charges are made. These charges, first introduced in 1951 and since increased, are designed to help to limit rising costs without reducing the services offered.

There is a charge of 2s. for each item entered on a prescription form. Charges are also made for dentures (except for children under 16 or still at school, and expectant and nursing mothers) and spectacles (except children's spectacles in standard frames), for elastic hosiery supplied in the family doctor service or hospital out-patients' department, for certain appliances supplied to out-patients, for treatment in the dental service (but not for examination only or for treatment given to persons aged under 21

years or to nursing or expectant mothers), and for some local health authority services. Certain exemptions or refunds are made and anyone may apply to the National Assistance Board for help in meeting any of these charges. Under the 1946 Act, a limited number of beds may be put aside for hospital patients wishing for privacy, provided that this accommodation is not needed on medical grounds for non-paying patients. Charges for these 'amenity' beds are fixed by statutory regulations. Provision is also made at certain hospitals for patients who wish to occupy private patients' accommodation on payment of the whole cost of this accommodation and treatment. Such patients may make private arrangements for treatment by a doctor of their own choice.

Hospital medical staffs are either full-time and salaried, or part-time; part-time medical officers are usually paid on a sessional basis and are free to accept private patients. General medical practitioners in public service are remunerated mainly by capitation fees according to the number of persons on their lists.

Dentists providing treatment in their own surgeries are paid on a prescribed scale of fees according to the treatment they have carried out. Pharmacists dispensing on their own premises are paid on the basis of the prescriptions they dispense. Doctors and ophthalmic opticians taking part in the supplementary ophthalmic service are paid prescribed fees for each sight test made; opticians who dispense spectacles are paid according to the number and type of pairs supplied.

The General Practitioner Services

The general practitioner services cover the medical attention given to individuals by doctors and dentists of their own choice, from among those enrolled in the service. Doctors and dentists normally work at their own surgeries; in a few places they practise in health centres established under the National Health Service Acts. About 25,000, or almost all, general medical practitioners (principals and assistants) in Great Britain take some part in the service.

Doctors previously in practice were entitled to join the service at its start in the place where they were practising. Those now wishing to enter practice have to apply through their executive councils to the central Medical Practices Committee, so that a better distribution of doctors throughout the country may be facilitated. The maximum number of patients' names permitted to be on a family doctor's list is normally 3,500; the average number in England and Wales is about 2,300. It is normally through the patient's own doctor that access to most other parts of the health service is obtained.

There are over 10,000 dentists in England and Wales and over 1,000 in Scotland in the general dental service.

Nearly 900 ophthalmic medical practitioners and over 7,000 ophthalmic and dispensing opticians in England and Wales, and over 70 ophthalmic medical practitioners and nearly 800 ophthalmic and dispensing opticians in Scotland, are engaged in the supplementary ophthalmic service. This service provides for the testing of sight and provision of spectacles. Cases requiring treatment are dealt with through the hospital eye service.

Almost all chemists (nearly 16,000 in England and Wales and about 2,850 in Scotland) are taking part in the service.

Hospital and Specialist Services

The hospital and specialist services provide hospital accommodation of all kinds, including district general hospitals with treatment and diagnostic facilities both for in-patients and out-patients, hospital maternity departments, infectious disease units,

psychiatric hospitals and units, convalescent homes, and rehabilitation centres; all forms of specialised treatment; and the services of specialists and other staff required for the hospitals.

Hospitals

A large proportion of the 3,000 hospitals in the National Health Service in Great Britain were built in the nineteenth century; some trace their origins to much earlier charitable foundations, such as the famous St. Thomas's and St. Bartholomew's Hospitals in London. Restrictions on capital investment required by the economic position just after the second world war and, after 1948, claims on the available financial resources by other parts of the National Health Service, have meant that a full-scale post-war hospital building programme was not launched until 1956. Between 1956 and 1961, 16 new hospitals were brought wholly or partially into use and major extensions or modifications were made to many others. In 1962 ten-year hospital plans were published (one for England and Wales and one for Scotland) setting out the lines on which the Government intends to modernise systematically the hospital service. For the purposes of the plans expenditure of £570 million (£70 million of it for Scotland) over the ten years has been assumed. The plans specify that work should start on the building of 110 new hospitals (20 of them in Scotland) and the substantial reconstruction of an even greater number of existing hospitals.

About 2,640 of the existing hospitals in the National Health Service are in England and Wales, including the 26 teaching hospitals in London (actually groups of hospitals comprising about 100 hospitals, convalescent homes, branches, annexes, or treatment centres) and the 10 teaching hospitals elsewhere in England and Wales (comprising some 70 hospitals and other establishments). They have over 469,000 staffed beds and a nursing and midwifery staff of 163,000 full-time and nearly 50,000 part-time nurses and midwives. There are 385 hospitals in Scotland with about 63,600 beds and over 23,500 full-time and over 6,600 part-time nurses and midwives.

A small number of hospitals remain outside the service for special reasons. Most of these are run by religious orders. Some, such as the Italian and French Hospitals, serve a special group of patients; others are maintained for the chronic sick or for convalescents by charitable organisations. There are also private nursing homes, which must be registered.

Rehabilitation

The importance of rehabilitation as a facet of medical treatment is firmly established and today hospital treatment is not limited to the relief of pain, or alleviation or cure of pathological conditions, but aims at restoring the individual's functional capacity without delay. Special rehabilitation facilities are provided, for those requiring them, in the departments of physical medicine and occupational therapy at the main hospitals, and in a few special rehabilitation centres which are not attached to any hospital. The work is carried out under the guidance of the appropriate medical specialist by physiotherapists, remedial gymnasts, occupational therapists and social workers, working as a team. Experience has shown that efficient medical rehabilitation reduces the stay in hospital, the incidence of permanent disability and the period of incapacity for full work. The departments work in close association with the Disablement Resettlement Service of the Ministry of Labour. Rehabilitation methods have been applied with advantage in the care of the chronic sick, the mentally disabled, the aged and the handicapped and have enabled many patients to become self-sufficient or to be discharged from hospital and to resume an independent life in their own homes.

Blood Transfusion

The National Blood Transfusion Service in England and Wales is administered by the regional hospital boards under the National Health Service. Each region maintains an organisation for collecting blood from voluntary donors in the region, who give their blood without payment. The blood is kept in the regional blood bank, or issued to area blood banks maintained at general hospitals in each region. Each regional transfusion centre acts as a reference centre for all transfusion problems arising in the region. There are two central laboratories administered by the Medical Research Council on behalf of the Ministry of Health: the Blood Group Reference Laboratory, which prepares grouping serum and investigates blood grouping problems referred to it, and the Blood Products Laboratory, which prepares dried plasma and plasma fractions. In Scotland the Blood Transfusion Service is under the direction of the Scottish National Blood Transfusion Association, an independent voluntary body set up in 1940, which is supported partly by voluntary contributions, but in the main by a grant from State funds, made by the Scottish Home and Health Department. A close liaison is maintained with the National Blood Transfusion Service, the Blood Group Reference Laboratory and the Blood Products Laboratory.

Mass Miniature Radiography

Mass miniature radiography was introduced in 1943 as a means of early diagnosis of tuberculosis. About 100 units in England and Wales and 10 in Scotland operate under the regional hospital boards in close co-operation with the local health authorities. They examine about $3\frac{1}{2}$ million people a year, concentrating increasingly on areas with a bad record for tuberculosis, on specially susceptible groups in the population, and on adults in regular contact with organised groups of children.

Medical and Psychiatric Social Work

Many hospitals have an almoners' department staffed by medico-social workers trained to apply the principles of social casework to the problems of the hospital patient. The almoners' main function is to co-operate with the medical staff in their treatment of the patient; to limit, by social action, the personal anxieties, family difficulties and other problems which arise during illness; and to arrange, if necessary, for after-care and help with adjustment to normal life or continuing disability. Psychiatric social workers are specially trained for work in the mental health services and in child guidance clinics. They make an invaluable contribution, not only to hospitals but also to the local health and education services, in assessing the environmental factors in mental abnormalities and in helping patients to make the necessary adjustments.

Bacteriological and Virological Laboratory Services

The Public Health Laboratory Service provides a network of bacteriological and virological laboratories throughout England and Wales which conduct research and assist in the diagnosis, prevention and control of epidemic diseases. Its largest establishment is the Central Public Health Laboratory at Colindale, in north-west London, which includes the National Collection of Type Cultures, the Food Hygiene Laboratory, and reference laboratories specialising in the identification of infective micro-organisms.

In Scotland and Northern Ireland, where there is no separate public health laboratory service, bacteriological work is mainly done in hospital laboratories.

REHABILITATION :

a poly-neuritis patient uses a specially equipped kitchen at the Department of Daily Living in a Wiltshire hospital;

a blind man operates a switch-board with a Braille shorthand machine for notes, at a centre for handicapped people.



the dining room at a London County Council home for old people.



A blind man practises with his guide dog in a busy street, helped by an instructor.



Slings suspended from the ceiling help a patient to recover the use of her limbs, at the Nuffield Department of Orthopaedic Surgery, near Oxford.

Mental Health Services

Treatment for mental disorder is provided as part of the National Health Service. Patients who are suffering from mental illness can consult the family doctor and receive specialist advice at hospital out-patient clinics as they would for any other kind of illness, and if they need to enter a hospital for treatment, whether a general or a psychiatric hospital, they can do so without formalities. If patients, or their relatives, are unable or unwilling to make the necessary arrangements for admission to a psychiatric hospital, it is the duty of a mental welfare officer of the local health authority to do so.

Where necessary in the interests of society or of the patients themselves, mentally disordered patients can be compulsorily detained in hospital. Compulsory admission to hospital is regulated in England and Wales by the Mental Health Act, 1959, and in Scotland by the Mental Health (Scotland) Act, 1960. There are procedural safeguards to protect the patient from unnecessary detention and he, or his relatives, may appeal against detention, in England and Wales to a mental health tribunal, and in Scotland to the sheriff.

Local health authorities have a duty to take preventive measures against mental disorder, and arrange for the care of people suffering from mental disorder, and for their after-care. Arrangements may include facilities for training or occupation, and residential accommodation. If necessary, the local health authority can place a mentally disordered person under guardianship within the community. In Scotland education authorities share the responsibility for providing training or occupation.

Welfare Foods Service

Under the welfare foods service¹ expectant mothers, children under five and handicapped children under 16 who are unable to attend a school or training centre can obtain a pint of milk a day at the reduced price of 4d. Beneficiaries get tokens from the Ministry of Pensions and National Insurance to enable them to get supplies from their usual milk retailer at the special price.

The welfare foods other than liquid milk provided for expectant mothers and young children under five at cost prices are distributed by local health authorities; they are free to families who cannot afford to pay. These foods are national dried milk as an alternative to liquid milk and at an equivalent price, orange juice, cod liver oil and vitamin A and D tablets.

Local Health Services

The Local Health Services administered by the county and county borough councils (county and large burgh councils in Scotland) consist of the maternity and child welfare services, including welfare centres, maternity care, dental care and day nurseries, the services for the prevention of illness, care, and after-care, including vaccination and immunisation, health visiting, home nursing and domestic help; the ambulance services (in Scotland the responsibility of the Secretary of State, and in Northern Ireland of the Northern Ireland Hospitals Authority); and the provision, equipment and maintenance of local health centres (the responsibility of the Secretary of State in Scotland).

¹ The service began as a war-time measure with the National Milk Scheme in 1940, but in 1946 the Government decided to continue the extended scheme as part of the peace-time social services.

Welfare Centres

Maternity and child welfare centres have existed for many years. They are part of the advisory and preventive services of the local health authority; they offer regular supervision by doctors and nurses to expectant and nursing mothers and young children. Special sessions are held for vaccination and inoculation and for early testing of babies for deafness and other defects, and a feature of the service is the education of mothers by means of talks, discussion groups, demonstrations and classes. About three babies out of four are taken to the centres.

Maternal Care

The expectant mother may arrange to have her baby at home or in hospital according to the advice given by the doctor or midwife, or according to her own preference if sufficient hospital beds are available over and above those required for priority cases, i.e. those for whom domiciliary confinement is inadvisable for medical or obstetric reasons or because of adverse home conditions. The proportion of confinements taking place in hospital varies considerably between different areas; the national average has increased continuously over the past 25 years and is now 64 per cent for England and Wales and 75 per cent for Scotland.

For a home confinement the services of either a general practitioner obstetrician or her own family doctor, if he is willing to undertake her maternity care, besides those of a trained midwife in the domiciliary service of the local health authority, are now available to every mother. The doctor carries out ante-natal and post-natal examinations, attends at the confinement and gives any other medical care required. The services of a consultant obstetrician are also available if the doctor wishes for his advice. Routine supervision and advice is given by the midwife, who visits regularly before the confinement to examine the mother and give her advice and help generally. In addition, the expectant mother may attend the ante-natal clinic for instruction in preparation for motherhood and in some cases for interim ante-natal supervision. Frequently it is the midwife who undertakes the actual delivery. Both she and the doctor attend during the 10 days after confinement. Midwives work in close touch with the welfare centres in the care of the mother both before and after the birth of the child.

Other Maternity and Child Welfare Services

Many local health authorities make special arrangements for premature babies remaining in their own homes, by lending equipment and appointing experienced nursing staff to supervise their care.

There are some 450 day nurseries for children under five in Great Britain provided by local health authorities or voluntary associations working with them. The National Health Service Act, 1952, gave local authorities power to make charges for the use of day nurseries. Private or factory nurseries (of which there are about 600 altogether) must be registered with the local health authorities; this regulation applies also to persons who mind for payment more than two children, not all of the same family.

Most local authorities contribute to the cost of the work done by voluntary denominational and other bodies which care for unmarried mothers and their babies; a few authorities make direct provision for their special needs through their health departments. The voluntary associations employ specially trained workers to help the unmarried mother in making plans for herself and her child. Most homes and hostels for the ante-natal and post-natal care (and, in some cases, the confinement) of these mothers are provided by such organisations.

Health Visiting

Health visitors are State Registered Nurses who have received training in midwifery and had a special course of training in health visiting. They are employed by local health authorities to visit people in their own homes to give advice on the care of young children, expectant and nursing mothers, people suffering from illness, including mental illness, and any injury or disability requiring medical or dental treatment, and on measures necessary to prevent the spread of infection. Their duties include health education and attendance at ante-natal and child welfare clinics. They may also undertake tuberculosis visiting and school nursing. A Council for the Training of Health Visitors is to be set up under the Health Visiting and Social Work (Training) Act, 1962, for the whole of the United Kingdom to promote the training of health visitors.

Home Nursing

The employment of nurses to attend patients who require nursing in their own homes is the responsibility of the local health authorities. Although many authorities employ nurses directly for this purpose, others have arranged for voluntary district nursing associations to provide a service on their behalf.

Domestic Help

Local health authorities (welfare authorities in Northern Ireland) have the power to make arrangements for domestic help (commonly called 'home help') in households where it is needed owing to illness, confinement, or the presence of children, old people or the mentally disordered. This service is mainly used in the care of old or chronically sick people, in maternity cases and, to a lesser extent but increasingly, for families where such help is needed to prevent children having to be cared for away from home, for example, during the absence of the mother. It is not one of the free services, and authorities may recover from those assisted such charges as the authorities consider reasonable, having regard to the person's means.

Ambulance Services

Free conveyance by ambulance in England and Wales between home and hospital or clinic is provided, where needed, by local authorities either directly or by arrangement with voluntary organisations. The Hospital Car Service (organised by the St. John Ambulance Brigade, the British Red Cross Society, and the Women's Voluntary Service) augments the ambulance service in many areas for the conveyance of sitting patients. In Scotland ambulances are run by the Scottish Ambulance Service (St. Andrew's Ambulance Association and the Scottish branch of the British Red Cross Society) on behalf of the Secretary of State. In Northern Ireland they are run by the Northern Ireland Hospitals Authority.

Prevention of Illness: Care and After-Care

Measures for the prevention of tuberculosis, such as BCG vaccination and detection and treatment of infectious cases, are the responsibility of all local health authorities. Facilities for diagnosis and treatment are the responsibility of the hospital service and are provided through hospitals and chest clinics. The chest physicians staffing these clinics are often employed jointly by the hospital authorities and local health authorities, to ensure that diagnosis and treatment are properly co-ordinated with prevention and after-care. Among the duties of these officers are those of making recommendations for residential treatment, visiting the homes of patients, and examining and advising

'contacts'. They are assisted in this work by tuberculosis health visitors and nurses and by almoners or other social workers. Most local health authorities have statutory or voluntary tuberculosis care committees. BCG vaccination is available to children of 10 and upwards, to students at universities and colleges, and to various other persons specially exposed to risk.

Care and after-care of patients is supplemented by general advice and assistance to the households in which they live. Local health authorities send suitable patients to the village settlements for tuberculous persons which are run by voluntary bodies or by local health authorities of other areas; training for employment is carried out in conjunction with the training and resettlement schemes of the Ministry of Labour.

Care and after-care arrangements are made by all local health authorities for other types of illness, including mental disorder, to varying extents; in particular, there are a number of different services for people being nursed at home, such as the loan of special equipment or the laundering of bed linen. A chiropody service is provided in many areas. As part of their preventive work, local health authorities may give help and advice to families, particularly those which may be in difficulties and in danger of breaking up, or where there is a danger to the physical or mental health of the children.

A charge may be made for some of these services if the person wishing to make use of them can reasonably be expected to contribute towards their cost.

Vaccination and Immunisation

Arrangements for vaccination against smallpox and immunisation against diphtheria, without charge, as part of the National Health Service, are made by all local health authorities; in addition, most local health authorities have similar arrangements for immunisation against whooping cough and tetanus.

Vaccination against poliomyelitis is also available through local health authorities for persons under 40; those over 40 may be vaccinated by their general practitioner. BCG vaccination against tuberculosis is available to certain adults and children (see above).

Health Centres

Fifteen health centres which provide primarily for the association of general medical practice with maternity and child welfare services and the school health service have been set up by local health authorities in England and Wales. This is one form of co-operation between the different elements in the health service. Other forms of co-operation are growing, such as the siting of group practices adjacent to local health authority clinics, the attendance of midwives for ante-natal sessions at general practitioners' surgeries and the attachment of health visitors to particular practices for the whole or part of their time. The provision of the two health centres in Scotland is the responsibility of the Secretary of State for Scotland and not of local health authorities.

Problems of the National Health Service

The National Health Service is not without its difficulties and shortcomings. For example, the original ideal of comprehensive free treatment for all has to some extent been breached by the introduction of charges for some parts of the Service which the majority of the users have to pay. In spite of these, the total cost of the Service has continued to rise, because of such factors as increases in prices and in staff salaries, the high cost of many new drugs and of modern equipment, the increased use made by the public of the services provided, extensions and improvements of the service and an

increased rate of capital expenditure. More doctors, dentists, midwives and nurses are needed by an expanding service. There is also some disparity between different parts of the country; some areas have more family doctors than others, more hospital beds for confinements of mothers who would prefer to have their babies in hospital though they do not need specialist medical care, and more extensive local authority services.

On the credit side of the balance may be set the steady improvement in the country's vital statistics to which the National Health Service has largely contributed, the decrease in invalidity from neglected ailments, and the removal of anxiety about the cost of treatment from which many of those who now use the service previously suffered.

HEALTH SERVICES IN NORTHERN IRELAND

In Northern Ireland the historical development of the health services has taken broadly the same course as in other parts of the United Kingdom, and the health services established under the Health Services Act (Northern Ireland), 1948, correspond fairly closely to the medical care system established under the National Health Service in Great Britain. The essential principle is that the same range of services shall be available to citizens in Northern Ireland as in England, Wales and Scotland. The services in Northern Ireland are financed as in the rest of the United Kingdom.

The hospital and specialist services are administered by the Northern Ireland Hospitals Authority (which corresponds approximately to a regional hospital board in Great Britain) through hospital management committees. In hospital administration the role of the central government is not quite so immediate and direct as in Great Britain: hospital property, for example, is vested not in the Minister of Health and Local Government but in the Northern Ireland Hospitals Authority, which has under its control 75 hospitals containing in all about 17,000 beds. The administration of the general medical, dental, pharmaceutical and supplementary eye services is in the hands of the Northern Ireland Health Services Board, which takes the place of the executive councils in Great Britain. Local health services are administered by the six county councils and the two county borough councils in Northern Ireland. The range of local authority services and the arrangements made by the Northern Ireland General Health Services Board for the provision of services, and for the remuneration of the persons providing them, are similar to those already described for the rest of the United Kingdom.

VOLUNTARY AID FOR THE SICK AND HANDICAPPED

A number of voluntary organisations provide extensive welfare services for sick and handicapped people in co-operation with, or supplementary to, the provision made by central and local authorities. Many convalescent homes and homes for the infirm and for people with specific handicaps are, or were originally, provided by voluntary effort. In many areas invalid children and others needing care in their own homes are visited and helped by voluntary organisations. Though the need for material aid from private sources becomes less as public provision extends, many forms of help to meet individual needs that would not otherwise be met are given by voluntary agencies. Their most valuable role is probably to provide small personal services and the continued personal interest that can mean so much to a sick or handicapped person. These voluntary agencies usually depend largely on the work of part-time or full-time unpaid volunteers.

A great deal of help is given to hospitals by voluntary bodies and individual voluntary helpers. The majority of the hospitals in England and Wales have their own Leagues of Friends or similar bodies of voluntary workers who organise and undertake a variety

of services for their hospitals. Many hospitals also have help from the British Red Cross Society, the Order of St. John, the Women's Voluntary Service, or a similar organisation. The operation of canteens for out-patients, and trolley-shops and book and picture library services for in-patients, visiting in the wards, receiving new patients, and mending linen are among the tasks commonly undertaken.

THE MEDICAL, DENTAL AND ALLIED PROFESSIONS

Only persons whose names are on the medical register can practise as doctors under the National Health Service. Apart from registered medical practitioners, only persons whose names are on the dentists' register can practise dentistry in Britain. The minimum qualification for registration as a doctor requires five to seven years' training in medical school and hospital, plus one year as an intern; for a dentist, four or more years at a dental school are required. The governing body of the medical profession is the General Medical Council, first set up in 1858; that of the dentists is the General Dental Council, which succeeded the Dental Board in 1956. The British Medical Association is the doctors' professional association; that of the dentists is the British Dental Association.

The minimum period of hospital training required to qualify for registration as a general trained nurse is three years. Training is available also in sick children's, mental, and mental deficiency nursing. The course for an enrolled nurse is a two-year one. The governing body of the nursing profession is the General Nursing Council, set up in 1919. Midwives must have the certificate of the Central Midwives Board. Most pupil midwives are already state registered general nurses or sick children's nurses; for them the two-year midwifery training period is reduced to one year and, for state enrolled nurses, to 18 months. The Royal College of Nursing and the Royal College of Midwives are the professional bodies for nurses and midwives.

Only registered pharmaceutical chemists may practise as pharmacists or describe themselves as such, and qualifications requiring four to five years' academic study and practical training are necessary for registration. The Pharmaceutical Society of Great Britain is the governing body of the profession. Under the Opticians' Act, 1958, a General Optical Council regulates the profession of ophthalmic optician and only registered ophthalmic opticians (or registered medical practitioners) may test sight. Training takes three years followed by a year under supervision.

For the professions of chiroprapist, dietitian, medical laboratory technician, occupational therapist, physiotherapist, radiographer, remedial gymnast and speech therapist a good general education is required, followed by professional training, mostly of two or three years. Only people with approved qualifications may be employed in these professions in the National Health Service. Except for speech therapists, these professions will shortly have their own professional boards, supervised by the Council for Professions Supplementary to Medicine. The length and nature of the training varies according to the profession and may be as long as three years.

Almoners must obtain the certificate of the Institute of Almoners, or have taken a recognised university course to qualify them for membership of the Institute. Psychiatric social workers are required to have a certificate showing they have attended the mental health course provided at certain universities.

MEDICAL RESEARCH

The Medical Research Council (see p. 157) is the main governmental organisation engaged in medical research in Britain. A considerable amount of research, however,

is carried out by the universities and their associated medical schools and in hospitals in the National Health Service for which the Minister of Health and the Secretary of State for Scotland are responsible.

A valuable contribution to research in various branches of medicine is made by private organisations, of which the British Empire Cancer Campaign and the Nuffield Foundation are probably the largest. There is close co-operation between the Medical Research Council and these organisations to ensure the best allocation of their respective resources.

Medical Research Council

The Medical Research Council's programme of work is carried out both in its own research establishments and by independent investigators, in the universities and elsewhere, with support from the Council in the form of research grants. The programme includes fundamental studies of the structure and natural processes of the body; clinical and laboratory studies of disease; the development and evaluation of special methods of treatment and also of prophylaxis and diagnosis; and the study of social and occupational factors affecting health and the efficiency of body and mind.

In planning and carrying out its programme, the Council is assisted by special advisory committees which it appoints. Two of the more important of these are the Clinical Research Board, set up in consultation with the health departments to assist the development of clinical research, and the Tropical Medicine Research Board, appointed in consultation with the Department of Technical Co-operation, to advise on the promotion and co-ordination of research in this field.

WELFARE SERVICES

Welfare Services for the Blind, the Deaf and the Disabled

All local welfare authorities provide services for the blind, either directly or through voluntary organisations acting as their agents. They are also providing, or arranging for, welfare services for the deaf and other handicapped people, including the mentally disordered of all descriptions; voluntary organisations also play an important part in this work by supplementing local authority services. Local authorities are required to keep registers of the blind in their areas and of deaf and other physically handicapped people who wish to register.

Services for the blind include a home visiting and teaching service, employing qualified home teachers, to assist the blind to adjust themselves to their blindness (special attention is given to the newly blind and to those with more than one disability, such as the deaf-blind); instruction in craft work and in the use of embossed symbols for reading and writing; social clubs, holiday and other recreational facilities; the supply or loan of apparatus, such as wireless sets, embossed and recorded books, adapted tools and games; residential social rehabilitation and placement in employment; and an advisory service on the special financial and other benefits available to the blind (including preventive and medical treatment, special education, and training for employment). Voluntary organisations for blind welfare include local blind societies and also national bodies, notably the Royal National Institute for the Blind, the National Library for the Blind, St. Dunstan's (for those blinded in the wars), the Scottish National Federation for the Welfare of the Blind and the Scottish National Institution for the War Blinded.

Progress is being made with services similar to those available for the blind for other severely and permanently disabled people. The teaching of handicrafts, training

for employment either in open industry or sheltered workshops, the organisation of social centres, clubs and other social activities, the adaptation of premises to meet individual disabilities, and the arrangement of holidays, are some of those most generally provided.

Old People's Welfare

A number of home services for old people are provided by statutory and voluntary bodies to help them to go on living in their own homes for as long as possible. Local health authorities supply, under the National Health Service, home nursing and domestic help (see p. 153); over half the district nurses' time is spent on the aged or the chronic sick and the same group makes the heaviest demands on the home help service.

Local authorities are enabled by the National Assistance Act to provide meals and recreation for old people either directly or through the agency of voluntary organisations. They also have power to assist voluntary organisations by contributing to the cost of the services, giving or lending furniture, vehicles or equipment, permitting organisations to use premises belonging to the local authority and making available the services of local authority staff in this connection.

Local Old People's Welfare Committees have been formed and are aided by the National Old People's Welfare Council, an associated group of the National Council of Social Service widely representative of voluntary and statutory bodies having direct contact with old people, or by the Scottish Old People's Welfare Committee, a committee of the Scottish Council of Social Service. A National Corporation for the Care of Old People was established in 1947 by the Nuffield Foundation¹ to stimulate and to give financial support to schemes for the welfare of the aged, to maintain an expert technical advisory service, and to encourage and undertake research and experiment for the welfare of old people. It is now concentrating its main effort on home services. The King George VI Foundation, which was financed from the fund raised in memory of the late King, spent nearly £600,000 on schemes for old people, by way of grants for the development of existing clubs, the establishment of new clubs, and the training of workers to help old people.

Residential Accommodation

Local authorities provide residential accommodation, under the National Assistance Act, for the aged, infirm and others, and temporary accommodation for people who lose their homes, for example, in some disaster such as fire or floods. The newer homes provided by local authorities for aged and other infirm persons usually have accommodation for 40 to 60 residents; over 1,360 have been opened in Great Britain since the end of the second world war. County welfare authorities in Northern Ireland have provided 27 similar homes. These smaller homes are gradually replacing the larger institutions which were previously maintained by local authorities. There are also about 2,000 small homes for old and disabled people run by voluntary bodies or by private individuals.

¹ The Nuffield Foundation was established by Lord Nuffield in 1943 for the advancement of health and the prevention and relief of sickness; the advancement of social well-being; the care and comfort of the aged poor; the advancement of education; and such other charitable purposes as might be declared by Lord Nuffield in his lifetime and by the trustees after his death. Prominent among the foundation's many activities are the promotion of medical, scientific and social research and the development of medical services and of technical and commercial education. Its resources consist of a fund of £10 million provided by Lord Nuffield and of gifts and bequests from other persons.

The National Assistance Board, which is responsible for influencing 'persons without a settled way of living' to lead a more normal life, provides temporary accommodation for them in reception centres, sometimes through the agency of local authorities. For men who have become demoralised by long unemployment and who are in receipt of national assistance grants or are using reception centres, it runs one non-residential and two residential re-establishment centres where they are given help to fit them again for work.

Welfare Services in Northern Ireland

In Northern Ireland the services provided under the Welfare Services Act (Northern Ireland), 1949 (as amended), are broadly similar in scope to those provided in Great Britain under the National Assistance Act, the only notable exception being the inclusion of domestic help services, which in Great Britain are provided under the National Health Service Act. Local welfare services are provided by the six county and two county borough councils. The cost of the services is shared, as in Great Britain, between local taxation and the Exchequer.

CHILD WELFARE

Care of Children Deprived of Normal Home Life

The Children Act, 1948, which came into force with the ending of the Poor Law, places upon local authorities in Great Britain a duty to receive into their care any child under the age of 17 who has no parent or guardian, or who has been abandoned or whose parents are unable to provide for him temporarily or permanently. Local authorities must keep a child in care until he is 18 years of age or until he no longer requires it. Under the Children and Young Persons Acts, 1933-52, as regards England and Wales, and under the Children and Young Persons (Scotland) Acts, 1937 and 1956, local authorities are required also to accept children committed to their care, until the age of 18, by juvenile courts, as needing care or protection. Both categories of children are to be treated so as to further their best interests and to afford them opportunity for the proper development of their characters and interests.

Children in care are, if possible, boarded out with foster parents, who receive an allowance to cover the cost of maintenance. If a foster home cannot be found for a child, or he is not suitable for boarding out, he may be placed in a children's home managed by a local authority or a voluntary organisation. Many children's homes are now provided in small houses, on housing estates or in ordinary streets, where a group of twelve or fewer children live in the care of a housemother or houseparents, the husband following his normal employment. Other children may be placed in hostels or lodgings or in other accommodation specially suited to their needs. The desirability of returning a child to his family circle as soon as possible is fully appreciated, and work is carried out to rehabilitate the family where this is necessary.

To carry out its functions under the Children Act, each local authority (county council and county borough council or, in Scotland, council of a large burgh) is required to appoint a children's committee and a children's officer to be responsible for the care and upbringing of children in the authority's care. Children's officers are assisted by a staff of child care officers who undertake inquiries and who supervise children placed in foster homes. Regulations for England and Wales safeguarding the boarding out of children by local authorities and voluntary organisations and the conduct of children's homes have been made by the Home Secretary. In Scotland similar regulations have been made by the Secretary of State for Scotland. The cost of

the local authorities' child care service, including the provision of training for house-parents and child care officers, is shared between the local authorities and the Exchequer.

In Northern Ireland the Children and Young Persons Act (Northern Ireland), 1950, gave to the welfare authorities of each county and county borough (under the general direction of the Ministry of Home Affairs) the duty of caring for homeless and neglected children. Legislation relating to children and arrangements for their care follow the same general principles as in Great Britain.

War orphans are the responsibility of the Ministry of Pensions and National Insurance (see p. 144).

Voluntary organisations, many of which were pioneers in child care, continue to play a valuable part in this work. The larger societies, such as Dr. Barnardo's, the Church of England Children's Society and the Catholic Child Welfare Council, are constituent societies of the National Council of Associated Children's Homes, to which a large number of smaller voluntary homes are also affiliated. In Scotland a valuable contribution is also made by the Children's Homes and Hostels under the auspices of the Church of Scotland Committee on Social Service, and by other voluntary organisations, including the Quarriers' Home (formerly the Orphans' Homes of Scotland). Children's homes provided by voluntary organisations (of which there are about 620 in Great Britain and 23 in Northern Ireland) are required to be registered under the Children Act (in Northern Ireland under the Children and Young Persons Act). The boarding out of children and all children's homes, whether local authority or voluntary homes, are subject to inspection by Inspectors of the Home Office Children's Department, of the Scottish Home and Health Department or of the Northern Ireland Ministry of Home Affairs.

Adoption

Provision for legal adoption was first made in England and Wales in 1926, in Northern Ireland in 1929 and in Scotland in 1930. Over 15,000 adoption orders are made annually by the courts in Great Britain and some 250 in Northern Ireland; there are always more would-be adopters than children available for adoption. Adoption is now regulated by the Adoption Act, 1958, in Great Britain and by the Adoption of Children Act (Northern Ireland), 1950, in Northern Ireland. The Registrars General keep registers of adopted children; adoption societies (there are over 80 societies which arrange adoptions) must be registered with the local authority (in Northern Ireland with the Ministry of Home Affairs).

Welfare of Children Living in Their Own Homes

To safeguard the welfare of children living with their own parents or guardians, the children's departments have a duty to cause inquiries to be made in any case in which it is reported that a child may need care or protection, unless they are satisfied that such inquiries are unnecessary. In addition, local authorities, at the request of the Government departments concerned, have appointed local committees to co-ordinate local authority and voluntary services dealing with unsatisfactory families; one of their officers is designated as co-ordinating officer for the purpose of calling meetings of interested bodies to discuss particular 'problem families' and to decide on a course of action. These problem families, a very small minority in the community, are the focus of much attention from health, housing, education, children's and welfare authorities and voluntary bodies. The voluntary Family Service Units undertake intensive and prolonged casework with such families and there are several voluntary recuperative

centres to which mothers, with their children, can be sent for a period of residential training, sometimes as a condition of a probation order.

The old-established National Society for the Prevention of Cruelty to Children and its Scottish counterpart between them maintain inspectors and visitors throughout the United Kingdom for the investigation of cases of reported cruelty to, or neglect of, children in their own homes; when necessary they resort to law for the protection of such children, but they prefer to achieve their purpose by warning and advice.

EDUCATION

There are nearly nine million children and young people in full-time attendance at schools, universities, training colleges or technical colleges in the United Kingdom. Over 90 per cent of school children attend publicly provided or aided schools. The universities are independent, self-governing institutions but are aided from public funds. Most technical colleges and other centres of further education are publicly maintained. Many schools and colleges continue to benefit from the endowments provided by benefactors in past centuries.

The bulk of the expenditure on education in the United Kingdom therefore comes from public funds. Total public expenditure on education, including university education, exceeded £1,000 million in the year 1961-62.

In England and Wales the main development of publicly provided primary education dates from 1870, and that of secondary education from the beginning of the present century. In 1833 the Government had begun to make annual grants to the voluntary societies which were providing schools, and the Elementary Education Act of 1870 accepted the principle of compulsory education. By the end of the nineteenth century elementary education had become virtually both compulsory and free of charge. Public provision of secondary education (already begun in Wales) started in England under the Act of 1902. The Education Act of 1944 now governs public education in England and Wales. It seeks to widen and improve educational opportunities at every stage.

The Scottish and Northern Ireland educational systems both have long histories independent of that of education in England, but the same general policy is now being implemented throughout the United Kingdom, with some national variations.

Educational Administration

Administration of publicly provided education in Britain is divided between the central Government departments (the Ministry of Education for England and Wales, with its separate Welsh Department, the Scottish Education Department, and the Ministry of Education for Northern Ireland), local education authorities, and various voluntary organisations. The relation between these three groups is based on consultation and co-operation, both by direct contact between the parties and through Her Majesty's Inspectors of Education who act as liaison officers, particularly between local education authorities and the departments.

The local education authorities are responsible for ensuring that adequate provision is made in their areas for the two stages of school education (primary and secondary), and that those pupils who would profit by proceeding to a university are not deterred by lack of financial means. They are also responsible for the provision of all forms of 'further education', i.e. post-school education outside the universities.

The planning of the curriculum is largely in the hands of the head teacher of each school and the individual teachers. In England and Wales teachers are not subject

to direction from the central department on questions relating to curricula or methods. Her Majesty's Inspectors, who are responsible for the inspection of all schools including independent schools, review and report on the content and value of the education provided and, during their visits, are available as advisers. Local education authorities also employ inspectors to advise on the schools which they maintain. In Scotland the broad outline of schemes of work in primary and secondary schools is subject to the approval of one of Her Majesty's Inspectors. In Northern Ireland the curriculum of each grant-aided school is subject to the approval of the Ministry of Education, but considerable latitude is afforded both in the scope of the curriculum and in the methods employed.

SCHOOLS

Parents in Britain are required by law to see that their children receive efficient full-time education, at school or elsewhere, between the ages of 5 and 15. The school-leaving age is to be raised to 16 as soon as enough teachers and adequate accommodation become available to allow of this being done without thereby increasing the size of classes; this, however, is unlikely to be possible for some years to come. In England and Wales nearly 7 million children are attending publicly maintained schools, besides 121,000 others who are at schools receiving direct grants from the Ministry of Education. There are also 495,000 children of all ages at about 4,000 independent schools. In Scotland 887,000 children are attending publicly maintained or aided schools and about 17,000 are at independent schools. In Northern Ireland 285,000 children are attending publicly maintained or aided schools; independent schools are few. The number of school children in Britain is increasing; as the exceptionally large numbers of children born shortly after the second world war passed from primary to secondary schools, reduced numbers of primary school children have been more than offset by larger numbers in secondary schools, especially as more children each year stay on beyond the minimum school-leaving age. Moreover, while there was a certain drop in the birth rate after 1949, the rates for 1958 and 1959 rose again sharply, so that primary school numbers will again be very high in 1963-64. There is, therefore, a continuing demand for more teachers and more school buildings.

In England and in Northern Ireland it is usual for boys and girls to be taught together in primary schools, but rather more than half the secondary schools are for boys or girls only. Mixed schools are more common in Wales; and in Scotland all but a few city schools take both boys and girls.

The majority of independent schools are for boys or for girls only, except in classes for small children. There are, however, a few schools which are co-educational.

In England and Wales three kinds of school are supported from public funds: *county schools* (the largest group) which are provided and maintained by local education authorities, i.e. their full cost falls on public funds; *voluntary schools* (mostly 'aided' or 'controlled' schools) which have been provided by a voluntary body, usually of a religious denomination, but which are maintained by local education authorities¹; and *direct grant schools* which are completely independent of local education authorities but receive a grant-in-aid from the Ministry of Education. These last (the smallest group) mostly provide education of the grammar school type; they include some schools of ancient foundation.

¹ Aided schools have more independence than controlled schools, but they are partly responsible for maintaining their buildings (see p. 169) whereas controlled schools are not. Over a third of the schools maintained by local education authorities in England and Wales are voluntary schools and the majority of these are Church of England schools. There are some 2,000 Roman Catholic voluntary schools and smaller numbers belonging to other religious bodies.

In Scotland most of the schools supported from public funds are provided by education authorities and are known as *public schools* (in England this term is used for a type of independent school of which there are also a few in Scotland and Northern Ireland, see p. 165). There are also a few *grant-aided schools* (some of ancient foundation) conducted by voluntary managers and receiving grants direct from the Scottish Education Department.

In Northern Ireland there are county schools, managed by local education authorities, and voluntary schools, which are grant-aided schools under voluntary management.

In England and Wales no fees are charged to parents of children attending schools maintained by local education authorities, and books and equipment are supplied free. Direct grant schools still charge fees but must offer each year, to pupils who have at any time previously attended a grant-aided primary school for not less than two years, free places to the extent of not less than 25 per cent of the previous year's admission; and a further 25 per cent of the places must be put at the disposal of the local education authorities if they require them. Pupils occupying these latter places need not previously have attended a grant-aided primary school. Day pupils not holding free places are entitled to claim a remission of fees in accordance with an approved income scale, and the Ministry of Education pays the governors of the school the amount of the fees so remitted. Local education authorities also pay for some free places in independent schools which normally charge fees. A number of independent schools are able to offer some scholarships from endowments.

In Scotland education authorities may charge fees in certain schools provided that this does not prejudice the provision of free education for all who desire it.

In Northern Ireland no fees are charged to parents of children attending any county or voluntary primary, intermediate or special school; qualified pupils attending both county and voluntary grammar schools receive scholarships from the local education authorities which cover the whole or most of the fees charged by the school.

Primary Schools

A child's primary education continues until about the age of 11 in England, Wales and Northern Ireland and 12 in Scotland. There are some *nursery schools* and classes for children between 2 and 5 years old. In England and Wales there are *infant schools*, or departments, for all children between 5 and 7 and *junior schools* for those aged 7 to 11, while in Scotland there are *primary departments* for children aged 5 to 12 years.

In Scotland primary pupils must be taught reading, writing, arithmetic, English, music, art and handwork, nature study, physical training and, at the appropriate stage, history, geography, and written composition; girls must learn needlework. Religious instruction is also given. In England, Wales and Northern Ireland, the curriculum is similar in scope, with the addition in Wales of the teaching of Welsh. (Children who speak Welsh at home normally receive the early stages of their primary education in Welsh and are taught English as a second language.)

Secondary Schools

Public provision of secondary education is being greatly extended with the aim of giving all children an education suited to their particular abilities.

England, Wales and Northern Ireland

Since the organisation of schools is a responsibility of local education authorities in England and Wales, subject to the approval of the Ministry of Education, the type

of provision made for secondary education varies to some extent between areas. In some areas, different types of school specialise, in particular in the later years, in different types of course, with arrangements for the transfer of pupils between schools where desirable; in others, flexibility is achieved by an overlap of the courses provided in different types of school. There are, however, two main types of publicly maintained secondary schools in England and Wales: grammar schools and secondary modern schools.

Grammar schools take children who hope to reach a university and others likely to profit from an academic type of education. A large proportion of university students are recruited from these schools which, in England and Wales, are attended by about one secondary school pupil in four. *Secondary modern schools* form the largest group of secondary schools. They give a general education with a practical bias, closely related to the interests and environment of their pupils. There is also a small group of *secondary technical schools*; these schools offer an education related to industry, including commerce, and agriculture, but still general, and not vocational, in purpose.

Each local education authority decides how the selection shall be made for its secondary schools: generally speaking, this selection depends upon an assessment of the child's ability as shown in the primary school, often coupled with objective tests taken at about eleven years of age, which are commonly known as 'the eleven-plus'. There is provision for an appeal to the Minister of Education in the event of a dispute between a local education authority and a parent, and authorities reconsider original decisions when subsequent events prove this to be necessary. Both the system of allocating children to different types of secondary school at the age of eleven and the selection methods used have been the subject of much public discussion and critical thought. Local education authorities are constantly experimenting with methods of selection which will minimise any strain on children or their parents. At the same time, the authorities are seeking to organise their schools in such a way that every child will have, and feel that he has, the opportunity to develop his talents to the full. For those pupils who can profitably follow them, many modern schools now offer courses of the type found in grammar and secondary technical schools.

The London County Council and some other local education authorities have established *comprehensive schools* providing all types of secondary education for all, or most of, the children of a district. In urban areas such schools tend to be larger than the other types of school and may have as many as 2,000 pupils.

In Northern Ireland there are *grammar schools*, *secondary intermediate schools*, which are the equivalent of the secondary modern schools in England and Wales, and *technical intermediate schools*, which offer the same facilities as secondary technical schools in England and Wales.

The number of pupils remaining at school beyond the minimum leaving age has been increasing steadily for some years. Thirty-one per cent of the 15- to 16-year-old age group is now still in full-time education at schools or technical colleges, and nearly 16 per cent of the 16- to 17-year-old age group. Most grammar school pupils remain at school until they are 16 years old, some until they are 17, 18 or 19 years old. Most secondary modern pupils at present leave at the age of 15, but the number staying on until the age of 16 is increasing.

Scotland

Scottish secondary schools fall into two main categories, those providing courses extending normally to three years, generally called *junior secondary schools*, and those providing courses of four, five or six years, known as *senior secondary schools*. In

each type of school the courses are intended to provide a general education, but they are differentiated in character to suit the varying needs and abilities of the pupils, and include literary, commercial, boys' technical, domestic and rural courses. While some schools are purely junior secondary and some purely senior secondary, there are also many schools of the comprehensive type, traditional in Scotland, in which all kinds of courses, both junior secondary and senior secondary, are provided. Over one-third of all pupils go on to senior secondary courses on reaching secondary school age.

Promotion from the primary to the secondary school takes place usually between the ages of $11\frac{1}{2}$ and $12\frac{1}{2}$. The fitness of pupils to profit from the various types of secondary course is assessed on the basis of teachers' estimates of attainment, intelligence tests, and attainment tests, with due regard to the wishes of the parents. There is provision for an appeal to the Secretary of State for Scotland in the event of a dispute between the education authority and the parent and also for the reconsideration of original allocations if, later, transfer to another course appears to be necessary.

Special Schools

Special educational treatment, either in special schools or otherwise, is provided between the ages of five (or less) and 16 for children who require it on account of any physical or mental handicap, including maladjustment. There are about 970 special schools in the United Kingdom, including hospital schools, day and boarding schools, and boarding homes for handicapped children attending ordinary schools.

In England, Wales and Northern Ireland there are ten categories of handicapped pupils for whom local education authorities must provide special educational treatment: blind, partially sighted, deaf, partially deaf, delicate, educationally subnormal, epileptic, maladjusted, physically handicapped, and children suffering from speech defects. (There is not a separate category for the delicate in Scotland.)

Independent Schools

The largest and most important of the independent schools are known in England as public schools, although not all schools classed as public schools are independent (those which are not are mostly direct-grant schools) and public schools form only a minority of all independent schools.

The *public school* is a characteristic English institution which has made a notable contribution to English education. Many public schools date from the sixteenth century, some are older (e.g., Winchester, founded in 1382, and Eton, founded in 1440), and most have some income from endowments. Each is controlled by its own board of governors. Public schools have emphasised the importance of character-building, and in these schools were developed the prefect system, whereby day-to-day discipline is largely maintained by the pupils themselves, and the house system, whereby a school is divided into groups of about 50 pupils, each under the care of a housemaster. The public school is also characterised by a high staffing ratio and a high proportion of pupils doing advanced work. A public school is often, although not necessarily, a boarding school; day boys are also taken at some of these boarding schools. The usual age of entry to the independent public schools for boys is 13 and the leaving age about 18. There are some girls' public schools modelled to a certain extent on the public schools for boys.

Independent schools also include *preparatory schools*, many of them boarding schools, for boys aged from about 8 to 13 years most of whom are intending to enter public schools; some similar schools for girls; and a wide range of other day and

boarding schools covering every age group and grade of education and every variety of educational method. Some of these schools are owned and managed, often under a trust deed, by independent non-profit-making bodies. Others are privately owned by proprietors for whom the running of the school provides a living. All independent schools must be registered with the Ministry of Education, or, in Scotland, with the Registrar of Independent Schools.

Secondary School Examinations

There is no national leaving examination in England or Wales, but secondary school pupils and candidates not attending school may take an examination known as the General Certificate of Education (GCE). This examination, which is on a single subject and not a grouped subject basis (i.e. no subject is obligatory and individual subjects may be taken at different times), is conducted at 'ordinary' and 'advanced' levels. Most candidates for the ordinary level are about 16 years of age, although many take it earlier, at the discretion of their head teacher. Most grammar school pupils and an increasing number from other secondary schools take the ordinary examination, and passes in various subjects are widely accepted for entry to courses of vocational training. The advanced examination is at university entrance level (supplemented, from 1963, by special papers to help university authorities in selecting students) and is accepted also for purposes of entry to many forms of professional training.

In Scotland courses in senior secondary schools lead to examinations conducted by the Scottish Education Department. School pupils in the fourth year of secondary courses sit an examination at 16 years for the award of passes on the Ordinary grade of the Scottish Certificate of Education, and pupils in the fifth year can obtain passes on the Higher grade of the Scottish Certificate of Education at a standard equivalent to that of the former Higher grade of the Scottish Leaving Certificate. Examinations at both grades are open to candidates who have left school.

In Northern Ireland the Junior Certificate Examination is taken at about the age of 15 and the Senior Certificate Examination, which is conducted at two levels, at about 17 years of age.

Teachers

Teachers are appointed by local education authorities or school governing bodies or managers. In 1961 there was one full-time teacher to 24 pupils in publicly maintained primary and secondary schools in England and Wales and Scotland; the figure was 26 for Northern Ireland. The high birth rate at the end of the second world war is the chief of several factors in the present need for more teachers and, as more teachers enter the profession, the Government's first aim in educational improvements is to reduce the size of over-large classes in England and Wales to the statutory maxima of 40 for a primary school and 30 for a secondary.

There are 158 teacher-training colleges in England and Wales; in the academic year 1961-62 there were nearly 34,430 students in these colleges, and the number is expected to rise to 54,000 by 1966-67; many colleges are being extended and several new ones are to be built. Until recently the usual training course has lasted for two years, with three-year courses for women taking housecraft or physical education, but the ordinary course was extended to three years in September 1960. The courses are generally residential but since 1960 eight colleges have been opened for 'day' students only, with the object of attracting students, often older than average, whose domestic responsibilities would prevent their living in college. There are 24 university

departments of education providing a one-year course for graduates. In Scotland all teacher training is provided in four general colleges of education, two denominational colleges and a college for training women teachers of physical education. Courses are normally of one year's duration for graduates or the equivalent, and of three years for non-graduates. During 1961-62 there were over 5,500 students in these colleges and a programme of extension and new building has been started to relieve pressure on accommodation. Northern Ireland has three general teachers' training colleges, one university training department and three specialist colleges—one for training teachers of physical education, one for teachers of domestic science and one for teachers of art. The basic course in the general training colleges lasts three years. The education departments, the universities, local education authorities and other bodies provide a variety of short courses for practising teachers.

There are national salary scales for teachers in schools and other educational institutions maintained from public funds in England and Wales, in Scotland, and in Northern Ireland; and these scales influence the salaries paid to teachers in independent schools. There are also national superannuation schemes which are administered by the central departments.

In England and Wales agreed salary scales are submitted to the Minister of Education by joint committees of representatives of local education authorities' and teachers' associations. The best known of these committees are the Burnham Committees dealing with the salaries of teachers in primary and secondary schools and in establishments of further education. The Minister can accept or reject (but not modify) the committees' recommendations and make the approved scales mandatory on local education authorities.

Over 2,500 teachers leave Britain annually for posts in schools, teacher-training colleges, technical colleges and universities in other parts of the Commonwealth, including 600 who go to serve in the developing countries of the Commonwealth. Steps taken by the Government to encourage teachers to serve for a period overseas have included the establishment of a National Council for the Supply of Teachers Overseas and the introduction of special measures to safeguard teachers' interests both while abroad and on their return home.

Interchange schemes, under which teachers in Britain exchange posts for a year with teachers overseas, include one with the United States and another with Commonwealth countries, whereby each year over 100 British teachers exchange posts with teachers from Canada, Australia, New Zealand, and Rhodesia and Nyasaland. Official schemes also operate between Britain and several European countries for exchanges and temporary assistants' posts for language specialists.

Broadcasting and Visual Aids

The School Broadcasting Department of the British Broadcasting Corporation sends out 59 sound transmissions a week which reach more than 29,000 schools in the United Kingdom, over 70 per cent of the possible total. Television broadcasts to schools were begun in 1957 by both the British Broadcasting Corporation and Associated Rediffusion Limited. In June 1962 over 3,000 schools were equipped to receive the television programmes. The BBC broadcasts eleven television series a week to schools and, with repeat broadcasts, a total of 24 transmissions each week; Associated Rediffusion's output is similar. Neither sound nor television broadcasting attempts to cover the whole school curriculum or to replace the teacher; the purpose is to supplement existing work in the schools. Other visual aids to education—films, film strips, wall charts, pictures, and models—are being used increasingly in Britain's schools.

Since the autumn of 1962 the BBC has broadcast special sound and television programmes for students taking general courses at technical colleges and colleges of further education.

Religion in Schools

In England and Wales all children in county or voluntary schools receive religious instruction and take part in a daily corporate act of worship unless their parents object. In county schools, and in certain circumstances in voluntary schools, religious instruction of an undenominational Christian character is given. In all kinds of voluntary school there is opportunity for denominational instruction. In county schools in Northern Ireland clergy have a right of access to give religious instruction to children of their denomination for a limited period each week. In Scotland, subject to safeguards for the individual conscience, matters relating to religious instruction are in the hands of the school managers, but there are a number of denominational schools conducted by education authorities.

Services in the school chapel and religious teaching are an essential part of the life and education of the independent public schools and most of these schools are linked to some religious denomination.

Health and Welfare of School Children

Physical education, including organised games, is a part of the curriculum of all schools.

The School Health Service provides regular medical examination and certain free treatment for all children attending schools maintained by local education authorities. Treatment facilities include dental clinics and child guidance centres. (There are also child guidance clinics in the National Health Service.) In Northern Ireland the School Health Service is operated by the health authorities.

Milk (normally one-third of a pint a day) is given free to all school children who wish to have it, and the School Meals Service provides a daily dinner at a subsidised price (remitted where there is need) to just over half the pupils in county and voluntary schools. Education authorities have power to provide free transport for children who live more than a reasonable distance from the schools which they attend; this distance is defined as two miles for those under eight years and three miles for those over eight years (11 years in Northern Ireland).

School Building

Local education authorities are responsible for providing the schools and other buildings needed for public education in their areas. The central departments exercise control by approving annual building programmes, framing regulations, fixing cost limits and approving or rejecting the authorities' plans; they also offer guidance to authorities by means of building bulletins and in other ways.

An extensive building programme for education has been undertaken in Britain since 1947. Many war-damaged schools had to be repaired or rebuilt. Entirely new schools, both primary and secondary, were needed to provide for the increased number of children of school age, for the many post-war housing estates and for the new towns; new buildings were also needed to replace or improve those which were out of date and ill-equipped by modern standards. By the end of 1961 over 6,000 new post-war schools had been completed in Britain, over 700 more were under construction, and extensions had been made to a very large number of existing schools; but much remains to be done. In 1959 the Government announced a school building

programme for the five years 1960-65 amounting in value to about £300 million in England and Wales and £65 million in Scotland. In Northern Ireland 358 new schools had been completed by the end of 1961.

To help voluntary schools to keep pace with county schools in the standard of their buildings, the Education Act, 1959, raised the rate of grant for alterations, improvements and external repairs to 75 per cent of the approved cost. With a few exceptions, the schools affected are Church of England or Roman Catholic aided schools. Grants may also be made for building new aided secondary schools needed for children from aided primary schools which existed on 15th June, 1959. Similar provisions for grants of 65 per cent of the approved costs of voluntary schools' building and repairs have existed in Northern Ireland since 1948.

Advantage is being taken of the opportunity afforded by the extensive school building programme to introduce new ideas and methods in the design and construction of schools. Several education authorities have successfully developed systems employing prefabricated structures and component parts. New schools are light and airy, with an imaginative use of colour and generous provision of practical rooms and space for outdoor games.

UNIVERSITIES

There are 24 universities in the United Kingdom: 18 in England, four in Scotland, the University of Wales, and the Queen's University of Belfast in Northern Ireland.

The English universities are: Birmingham, Bristol, Cambridge, Durham, Exeter, Hull, Keele (until 1962 the University College of North Staffordshire), Leeds, Leicester, Liverpool, London, Manchester, Nottingham, Oxford, Reading, Sheffield, Southampton, and the new University of Sussex which admitted its first students in October 1961. The only other degree-giving institution (in Arts and Theology) is St. David's College at Lampeter, Wales. Plans have been approved for the establishment of universities in York, Norwich, Canterbury, Coventry, Colchester and Lancaster. The Universities of Oxford and Cambridge date from the twelfth and thirteenth centuries, and the Scottish Universities of St. Andrews, Glasgow, Aberdeen and Edinburgh from the fifteenth and sixteenth centuries. All the other universities were founded in the nineteenth or twentieth centuries.

The Universities of Oxford and Cambridge are each composed of a number of residential colleges. These colleges are corporate bodies governed by their own Fellows and distinct from the university. Most of the Fellows of the colleges are university teachers or officers and the majority of university teachers are also Fellows of colleges. The universities, as distinct from the colleges, own the main libraries, laboratories, and other buildings used for teaching and research.

The other universities in Britain are in the main non-residential and most are non-collegiate. Those composed of groups of largely autonomous colleges are London, which, with over 20,000 students, is by far the largest of Britain's universities; Durham, which includes King's College, Newcastle upon Tyne¹; and St. Andrews, which consists of colleges in St. Andrews itself and in Dundee. The University of Wales comprises the University Colleges of Aberystwyth, Bangor, Cardiff and Swansea, and the Welsh National School of Medicine at Cardiff.

The education departments have no jurisdiction over the universities, and their relations with them are concerned mainly with the training of school teachers, the

¹ A proposal to separate King's College from Durham and establish it as an independent university is under consideration.

provision of extra-mural education, and the award of scholarships from public funds. The universities receive aid from the State mainly in the form of direct grants from the Treasury which, in Great Britain, are made on the advice of the University Grants Committee, a committee appointed by the Chancellor of the Exchequer from persons with wide experience of schools and universities, or experience in industry.

The proportion of university income provided by the Exchequer is increasing and in 1960-61 was 72.7 per cent for Great Britain. Another 2.0 per cent was contributed by local authorities, 9.4 per cent by fees, and the balance by endowments and other sources. Expenditure from public funds on the universities, including capital grants and awards to university students, has doubled in the past five years and now exceeds £100 million annually.

Students

Admission to the universities is by examination and selection; there is no religious test and no colour bar. Women are admitted on equal terms with men, but at Cambridge their numbers are limited by statute. The general proportion of men to women students is three to one; at Oxford it is six to one, and at Cambridge ten to one.

All universities limit the number of undergraduates. Despite recent expansion programmes, applications for places still exceed the number available. In 1962 details were announced of a 'clearing house' scheme to simplify university entrance which will come fully into operation with applications for admission in October 1964 after a trial year in 1963 when it will deal with applications from students of technology only. Prospective candidates will then apply for places through the Universities Central Council on Admissions instead of to individual universities and the 'clearing house' will automatically pass on rejected applications to the next university of the candidate's choice. The colleges of Oxford and Cambridge, the medical and dental schools of London University, and the Universities of St. Andrews, Glasgow, Aberdeen and Belfast will not participate in the 'clearing house' and will retain their existing methods for admission.

At the beginning of the academic year 1961-62, there were 115,000 full-time students at universities or university colleges in the United Kingdom. This total, more than double the pre-war figure, is to be still further expanded (see p. 171).

Scholarships and Other Awards

Scholarships and other awards are now very widely available, for it is the national educational policy that no able boy or girl shall be prevented by lack of means from taking an advanced course at a university or elsewhere. About 80 per cent of university students in Great Britain are now aided from public or private funds.

Until 1962 the Ministry of Education offered 2,000 state scholarships annually which were competed for by prospective students wishing to take honours courses at universities or courses of comparable standard at technical colleges. Over 16,000 other students entering comparable courses received awards from local education authorities in England and Wales. As a result of the recommendations of the Anderson Committee, in 1961 the Government introduced the first of a series of measures to improve and simplify the awards system and establish it on a national basis. Since October 1961 in England, Wales and Scotland all British students with certain qualifications have been eligible for an award from public funds in order to attend full-time at a university, teacher-training college or other major further education establishment. In England and Wales state scholarships were abolished after 1962 and under the Education Act, 1962, local authorities have the duty of providing all new grants for university

students and students taking comparable courses. In Scotland students' allowances for university and comparable courses are awarded by the Scottish Education Department.

An award, as in the past, depends upon the income of the student or his parents.

A certain number of studentships for postgraduate study in arts subjects are offered annually by the Ministry of Education and the Scottish Education Department. Postgraduate awards to scientists and technologists are made by the Department of Scientific and Industrial Research and the Research Councils, which awarded 1,300 studentships in 1960.

University scholarships in Northern Ireland are awarded by the local education authorities. The Ministry of Education awards state exhibitions. Scholarships awarded by the universities and state exhibitions may be supplemented by local education authorities. Postgraduate awards and teacher-training scholarships are given by the Ministry of Education.

Studies and Degrees

Courses in arts and science are offered by all universities and at nearly all universities courses are available in one or more applied sciences. At the beginning of the academic year 1961-62, 40 per cent of full-time university students in Great Britain were taking arts courses and 60 per cent were studying science or technology (including medicine).

University degree courses generally extend over three or four years, though in medicine five or six years are required. The first degree of Bachelor (Master in Scotland) is awarded on the completion of such a course, depending on satisfactory examination results. In most universities an ordinary (or pass) degree or an honours degree can be taken, although the majority of students in England and Wales take honours courses. Further study or research is required at the modern universities for the degree of Master and by all universities for that of Doctor. Actual degree titles vary according to the practice of each university; some differentiate between the arts and sciences and some do not. Diplomas and certificates are awarded after shorter courses in some subjects.

The tutorial system of individual tuition to supplement the lecture system is a traditional and valued feature of the Universities of Oxford and Cambridge; it is now being developed in the other universities and colleges of Britain.

Most members of the academic staffs devote time to research and at all universities there are postgraduate students engaged in research. There has been an expansion particularly of research in science and technology in recent years (see p. 206).

University Expansion

The universities of Britain are expanding rapidly to meet the greatly increased demand for university education and also the need of a modern democracy for a highly educated population and the particular need, in a technical age, for scientists and technologists. The number of full-time students in universities in Great Britain is being increased from 100,000 in 1958-59 to 150,000 by 1966. It is planned to provide another 20,000 places by 1973-74. About two-thirds of the additional students who are expected to be in the universities will be students of science or technology. In Northern Ireland the number of full-time students increased from 2,392 in 1948-49 to 3,752 in 1961-62.

An extensive building programme is in progress to provide for the increased number of students. Building projects in Great Britain to the value of £104 million were begun, or have been authorised to begin, in the six-year period 1958-63, and universities have been authorised to make further plans on the basis of projects to the value of £30 million

to start in each of the years 1964 and 1965. These figures exclude the expansion of the Imperial College of Science and Technology in the University of London which is costing over £15 million. These amounts, together with additional sums for the purchase of sites and properties, for professional fees and for the provision of equipment for new buildings, are met from Exchequer funds administered by the University Grants Committee. Further sums are raised by the universities themselves.

Of the major projects included in the annual programmes for the period 1960-63 about 56 per cent of expenditure is for buildings to accommodate teaching and research in the various faculties, including about 44 per cent for science subjects and technology. The remaining 44 per cent is for general service buildings, such as halls of residence, student unions, refectories and libraries.

In Northern Ireland over £3 million was spent on building projects between 1955 and 1962 and further expansion at the rate of £750,000 a year is planned.

FURTHER EDUCATION

Outside the universities there is a great variety of further education, full-time and part-time, for those of all ages who have left school. Local education authorities are required to secure such provision either directly or by aiding voluntary bodies and institutions. Vocational and non-vocational courses at all levels and in all subjects are available in technical, commercial and art colleges¹ and in agricultural and evening institutes. These courses may lead to a wide variety of qualifications ranging from external university degrees and the highest technological awards to craftsmen's certificates, or they may offer opportunities for pursuing leisure-time interests. In the year 1960-61 there were some 133,000 full-time students at the technical and commercial colleges (excluding art colleges and agricultural institutes) in the United Kingdom and about 1½ million part-time students. Nearly a million other students attend evening institutes.

Technical and Technological Education

Within the field of further education, facilities for technical and technological education have been greatly expanded recently and the Government is promoting further development. A five-year programme for the expansion of technical colleges carried out in 1956-61 provided for an increase of about half as many again in the number of students completing advanced courses and increased the numbers released by their employers for part-time courses during the day. The cost of the programme for buildings and equipment during this period was nearly £100 million, comprising £70 million spent on buildings and £15 million on equipment in England and Wales, and £10 million for buildings and £2 million for equipment in Scotland. A further £15 million a year in England and Wales and £2 million in Scotland is to be spent on buildings for technical education in each of the three years from 1961 to 1964. The expansion of advanced courses of further education is being helped by sharing the cost among all local education authorities. In 1961 the Government proposed measures for a major reorganisation of education in technical colleges in Great Britain, providing for greater continuity between school and technical college education, a broadening of technical education and a closer adaptation of the system to the needs of industry.

The largest group of students attending technical colleges (524,058 in the United Kingdom in 1960-61) are young employees and apprentices who are released by

¹ For further information on art colleges see p. 229.

employers for study, usually on one day a week; day release study is often supplemented by attendance at evening classes. A wide variety of craft courses is available for young workers in various trades and occupations leading to appropriate qualifications at the end of a course of three to five years. Courses of a more professional character which are suitable for technicians or for those who aim ultimately at membership of a professional institution are also provided, leading to the National Certificates approved by joint committees representative of the education departments and the appropriate professional body (e.g., the Institution of Mechanical Engineers). Such courses are normally at two levels, ordinary and higher. Under schemes now being worked out most courses for the Ordinary Certificate are to last two years and students usually follow them between the ages of 16 and 19. The Higher Certificate requires a further two years' part-time study and is generally considered to reach a level corresponding to a pass degree in the subject concerned.

Full-time courses are taken by large numbers of younger students who leave school to enter secretarial or clerical work and also as an introduction to apprenticeship. But the most important group of full-time students are those following advanced courses leading to an external degree of the University of London, to the Higher National Diploma (awarded by joint committees in the same way as the Higher National Certificates) or to the Diploma in Technology (a national qualification first awarded in 1958). The Diploma in Technology (Dip. Tech.) is granted on the successful completion of an approved course in a technical college and is equivalent in standard to a university honours degree. It is administered by the National Council for Technological Awards, an autonomous body set up by the Minister of Education in 1955. The council has also instituted an award higher than the diploma—Membership of the College of Technologists (MCT).

The form of advanced full-time course which is rapidly gaining favour is the 'sandwich course'. This lasts from three to five years and consists of periods usually of three or six months spent alternately in studying full-time in a technical college and in gaining practical experience in industry; the majority of Diploma in Technology courses are sandwich courses. In the academic year 1961-62 there were some 12,900 sandwich course students. It is through a major increase in the number of students taking sandwich courses that the technical colleges are expected to achieve a 50 per cent increase in the output of advanced students.

There is a growing demand for courses of postgraduate standard, whether in technical subjects or in management studies, in technical colleges for students who have already obtained a first degree, a diploma, or a Higher National Certificate. A wide range of advanced short courses of a very specialised nature is also offered for senior technical staffs engaged in industry.

Under this system there is great flexibility in the arrangement of courses. As a result, young people can start courses at various ages on leaving school and can attain the highest qualification to which their abilities entitle them.

Technical colleges in England and Wales vary greatly in size, range of subjects, level of work and type of course. The largest has a total of some 14,000 students on the roll. The large colleges usually offer a wide variety of subjects, covering the basic technologies and the fundamental sciences. The colleges are organised in four broad groups:

- (1) *Local Colleges* (350), providing mainly part-time courses, some (lasting two to five years) leading directly to craftsman and technician qualifications such as Ordinary National Certificates and City and Guilds of London Institute Certificates;

- (2) *Area Colleges* (165), providing also some advanced courses from two to four years in duration for students starting at 18 or 19 years of age, and leading to Higher National Certificates and Diplomas;
- (3) *Regional Colleges* (25), covering wider areas than the local and area colleges, and doing a substantial amount of advanced work, including full-time and sandwich courses; and
- (4) *Colleges of Advanced Technology* concentrating entirely on advanced work, including postgraduate and research work, and comprising the following ten colleges: the Birmingham College of Technology; the Bradford Institute of Technology; the Welsh College of Advanced Technology, Cardiff; Loughborough College of Technology; the Royal College of Advanced Technology, Salford; the Bristol College of Technology; and, in London, the Battersea, Brunel, Chelsea and Northampton Colleges of Advanced Technology.

At present, in England and Wales there are 432 technical colleges (other than art colleges) that provide for full-time students, besides 162 others which take part-time students only. There are also *National Colleges*, which have been established to provide advanced courses for the particularly specialised techniques of certain industries. These include colleges such as those for Rubber Technology and Food Technology and the National Foundry College; they are managed by independent bodies with grants direct from the Ministry of Education.

Scotland has 16 *Central Institutions* for further education, of which seven are technical colleges. Six of these have full-time courses leading to their own diploma or associateship and in some the greater part of the work is full-time. The full-time courses are of three or four years' duration and comparable in scope and standard to university degree courses. There are close ties between the central institutions and the universities. The central institutions, working on a regional basis, are supported by some 80 local technical colleges, offering full-time and part-time day courses, and by evening classes at local centres. Twenty-four new colleges are expected to open in the early 1960s; of these, five had been opened by July 1962.

In Northern Ireland the system of technical education is similar to that in England and Wales and includes courses leading to National Certificates. The Ministry of Education for Northern Ireland awards junior and senior trade scholarships to apprentices, to enable them to follow full-time courses of study at the Belfast College of Technology and the Lisburn Technical College. The junior course lasts five months and the senior course eight months.

Most of the technical colleges and other further education establishments in the United Kingdom are either maintained or aided from public funds. Tuition fees are therefore moderate, and often nominal for young people under 18 years of age. Many full-time students are helped by awards from local education authorities. The awards are generally based on the results of the General Certificate of Education or a corresponding examination; they are assessed to cover tuition fees and a maintenance grant, but parents who can afford to contribute towards the cost are required to do so. There are also some scholarships available from endowments, and others are awarded under schemes organised by particular industries or companies for the most promising of their young workers.

Commercial and Management Education

Commercial education is provided in local authority commercial and technical colleges, in independent colleges and by bodies organising correspondence courses.

More than half the candidates taking professional examinations in commercial subjects do so through correspondence courses.

Until recently provision for commercial education was almost entirely by part-time evening courses, few of which were above intermediate level. In line with recent developments in other spheres of technical education, in October 1962 new commercial courses were introduced in technical and commercial colleges in England and Wales. These lead to the Ordinary and Higher National Certificate in Business Studies; a more advanced course for full-time or sandwich course students leads to a new qualification, the Higher National Diploma in Business Studies, which is equivalent in standard to a university pass degree. The Scottish Council for Commercial Education awards senior and advanced commercial certificates to students aiming at a professional career in commerce in Scotland.

Management studies are provided by universities and technical colleges, by individual companies or by trade and industrial federations. Certain independent colleges specialise in management training. Several universities have introduced business studies into the curriculum and throughout the country over 100 technical colleges provide courses under the schemes administered jointly by the British Institute of Management and the Ministry of Education (in England and Wales) and the Scottish Education Department respectively. In Scotland the Scottish Education Department and the British Institute of Management administer a course leading to the Certificate of Business Administration designed for students in junior supervisory positions. At postgraduate level there is now a Diploma in Management Studies.

An Advisory Council on Management Education for the United Kingdom was established in 1961 to keep under review provision for management education and to advise interested bodies.

Adult Education

Adult education (non-vocational study, outside the universities, for those who have left school) is organised by local education authorities (sometimes in association with voluntary bodies) in evening institutes, schools of art, adult education centres, community centres and youth clubs. Many of the classes are practical, but there are also wide opportunities for academic study at all levels. Voluntary organisations, such as the National Federation of Women's Institutes and the National Union of Townswomen's Guilds, offer courses in handicrafts and other subjects to their members; the local education authorities usually supply the teachers.

In general, courses at the highest levels in arts subjects are provided by the extra-mural departments of the universities, many of which have full-time staff appointed for this purpose and can call on the services of other members of the university staff; by the Workers' Educational Association, which also employs organising tutors and in many regions works in close collaboration with the university extra-mural departments; and by other voluntary bodies. In 1960-61, 179,000 students in England and Wales attended such courses, which are grant-aided directly by the Ministry of Education and, in many cases, are assisted financially and in other ways by local education authorities; 3,800 students attended similar courses in Northern Ireland.

Voluntary bodies with a particular view-point, such as the National Council of Labour Colleges and the Co-operative Union, also organise adult education courses without grant-aid. Six residential colleges (five in England and Wales and one in Scotland) directly aided by the education departments offer one-year or two-year cultural, non-vocational courses for adult students. In addition, there are about 30 other residential colleges where students can take short courses of a similar kind lasting

for a few days or a few weeks. Most of these latter colleges are maintained or aided by local education authorities.

The National Institute of Adult Education provides in London a centre of information and research for adult education, as well as a channel of co-operation and consultation for the many organisations in England and Wales which are interested in the subject. It is assisted by a grant from the Ministry of Education. There is a corresponding body in Scotland, the Scottish Institute of Adult Education.

Local education authorities can provide *community centres* for urban areas; these centres normally supply facilities for both vocational and non-vocational classes for the further education of young people and adults. The centres are usually managed by community associations, many of which are affiliated to the National Federation of Community Associations. Similar classes in rural areas are held in village halls and a variety of other premises by local education authorities and voluntary bodies; in Cambridgeshire there are nine 'village colleges', which combine facilities for secondary and adult education, and a similar 'college' was opened in Derbyshire in 1958.

Financial assistance is given by the education departments to local voluntary organisations towards the capital cost of community centres, village halls, playing fields and similar facilities for social and physical recreation for adults.

OVERSEAS STUDENTS IN BRITAIN

Opportunities for students from overseas to come to Britain to study in universities or other educational institutions have increased greatly during the last few years. In 1962 there were about 60,000 overseas students in Britain, of whom about one quarter were at universities, another quarter at technical colleges and the remainder training as doctors and nurses, for the law, or in industry. Some two-thirds of all overseas students were from the Commonwealth.

A wide range of public and private fellowships and scholarships for advanced study in Britain are awarded annually to students and research workers from other Commonwealth countries. Under the Commonwealth Scholarship and Fellowship Plan, the Governments of certain Commonwealth countries have made awards available to men and women from other Commonwealth countries at universities, colleges and other institutions of higher learning in the country of offer. The United Kingdom Government has allocated nearly £3½ million for the five-year period 1960-65 to enable a maximum of 500 scholars in any one year to study in Britain; some 400 others take teacher-training courses. An example of smaller schemes is the Athlone Fellowship Scheme, under which since 1951 the United Kingdom Government has awarded 38 fellowships a year to engineering graduates in Canada for up to two years' further study, training and research in institutions or industries in Britain.

About 400 British Council¹ scholarships, tenable usually for one year in the United Kingdom, are awarded annually to graduates of overseas universities. Twenty-four Marshall Scholarships for university study in Britain are offered annually by the

¹ The *British Council* exists to promote a wider knowledge of the United Kingdom and the English language overseas and to develop closer cultural relations with other countries. It was founded in 1934 and was granted a Royal Charter in 1940. Nine of the 30 members of its executive committee are nominated by Government departments; it is financed mainly from public funds. It is usually designated as the Government's principal instrument for the implementation of cultural conventions to which the United Kingdom is a party. The Council maintains staffs who, in some 80 overseas countries, foster English studies, provide regular information on British life and thought and promote knowledge of the educational, scientific, literary, artistic and other developments and achievements of the United Kingdom. It arranges study programmes in the United Kingdom for scholars, teachers and other professional visitors from overseas.

United Kingdom Government to graduates from the United States of America and over 60 Rhodes Scholarships are awarded annually to Commonwealth and United States graduates for two years of study at the University of Oxford. Other universities and colleges themselves offer many scholarships for which graduate students of any nationality are eligible.

Fellowships and training awards for study in British institutions are available under the Central Treaty Organisation, the Foundation for Mutual Assistance in Africa (South of the Sahara) and the British Technical Assistance Programmes for Ghana, Nigeria, Sierra Leone and Tanganyika. Large numbers of awards for study or training in Britain are made under the United Nations Programmes of Technical Assistance and the Colombo Plan.

Arrangements for Overseas Students

Responsibility for overseas students in Britain rests with the institutions of higher education to which they are attached and with the students' own national representatives in Britain (High Commissions or Embassies). The British Council, by agreement with various Governments, acts as agent for the overseas departments of the British Government on matters affecting students' welfare.

Students from overseas are given many opportunities to get to know more of Britain in their leisure time and to make friends with British people. The British Council offers a wide range of activities. The Council has overseas students' centres in London and in other university cities, which organise a varied programme of lectures, discussions and social and other activities. Many British people like to invite students to their homes and the British Council arranges introductions. In the vacations there are courses in many parts of the country which offer opportunities for getting to know more about British life in town and country. In term time there are visits to various places of interest, and theatre and concert parties are arranged. The British Council assists many students to find accommodation and about 10,000 are met annually on arrival and helped to settle down quickly in their new environment. Recently the Government has announced that £3 million will be spent on increasing hostel accommodation and other facilities for overseas students in Britain.

Among many voluntary organisations which offer a welcome to overseas students are the East and West Friendship Council, Rotary, Round Table, the Victoria League, the Royal Over-Seas League, the Royal Commonwealth Society, the National Union of Students, the English-Speaking Union and Churches of all denominations. The London Conference on Overseas Students, for which the British Council provides the secretariat, co-ordinates their work in the metropolis. In some London boroughs there are committees which help students to make contact with local residents and organisations. Similar conferences have come into being in other large cities in Britain.

British Students Overseas

It has been estimated by UNESCO (*Study Abroad*, 1962) that there are some 3,260 students from the United Kingdom at institutes of higher education in 18 countries overseas.

The Commonwealth Education Liaison Unit, set up after the Commonwealth Education Conference of 1959, supplements normal direct dealings on education between the countries of the Commonwealth. Under the Commonwealth Scholarship and Fellowship Plan, a number of scholarships are made available annually to United Kingdom students by the governments of other Commonwealth countries for study in their universities, colleges and other institutions of higher learning. At present

Commonwealth Scholarships are being held by United Kingdom students in Australia, Canada, Malaya, New Zealand, the Federation of Rhodesia and Nyasaland, Nigeria and Pakistan, and others are being offered for competition to United Kingdom students with tenure in Ceylon, East Africa, Hong Kong, India and Malta.

For many years the United States have offered awards for British students, the best known being the Fulbright travel grants for postgraduate study at American universities. Students of British nationality are also offered scholarships (mostly for one academic year) at institutions of higher education in 20 European countries including the USSR, and in Brazil, Indonesia, Iran, Israel and Japan.

YOUTH SERVICE

The object of the youth service in Britain is to provide for the leisure-time activities of young people and to offer them opportunities—complementary to those of home, formal education and work—for discovering and developing their personal resources, so that they may be better equipped to be responsible members of a free and civilised society. There is no regimentation of young people; they are free to join any of the youth organisations and the aim is to offer facilities sufficiently varied to appeal to every type of boy and girl.

State and Voluntary Partnership

Responsibility for youth service in the United Kingdom is shared by the education departments, local education authorities, voluntary organisations and the Churches. There is no attempt to impose uniformity or to create any national youth organisation, but a number of youth organisations have spontaneously developed over the last century, mainly by voluntary effort. Between the two world wars, some of the local education authorities tried to help and co-ordinate voluntary work in their areas through Juvenile Organisations Committees; in the 1930s the State also began to promote social and physical training and recreation and in 1939 brought into being what is now called the Youth Service as a partnership of voluntary organisations, local authorities and central Government.

The status of youth services as an essential part of the educational system of Great Britain was confirmed by the Education Act of 1944 and the Education (Scotland) Act of 1945; in Northern Ireland, youth welfare work was promoted by the Physical Training and Recreation Act of 1938, the Youth Welfare Act of 1944 and the Youth Welfare, Physical Training and Recreation Acts of 1947 and 1962.

The education departments provide grants in aid of the administrative and training work of national voluntary youth organisations, towards the expense of training full-time youth leaders and towards the cost of premises and equipment of youth clubs provided by voluntary bodies.

Local education authorities co-operate with voluntary organisations in their areas: most give some financial help and lend premises and equipment; most also employ youth organisers to help in the promotion and encouragement of youth work; where voluntary services are considered inadequate, local authorities themselves organise youth centres and clubs. Most local authorities have appointed youth committees on which official and voluntary bodies are represented.

In addition to such grants as are received from the State and local authorities, voluntary organisations may receive help from charitable trusts for the furtherance of special projects, notably from the King George's Jubilee Trust (see p. 180) and, during the years 1953-60, the King George VI Foundation, which distributed nearly

£1.2 million from the memorial fund in remembrance of the King. The greater part of the funds of the voluntary organisations is, however, raised by their own efforts.

In 1958 the Minister of Education, aware that the Youth Service needed to do more to assist young people, appointed a committee, under the chairmanship of the Countess of Albemarle, to review the situation and advise on steps to be taken. The Minister accepted in principle the committee's recommendations, published in its report in February 1960, and announced immediate increases in financial help for the headquarters of national voluntary organisations, a building programme of £7 million to be started in the next three years, more grants to voluntary projects, including experimental ones, and immediate steps towards increasing the number of trained full-time leaders. In January 1961 a National College for the Training of Youth Leaders was opened at Leicester. The Minister is advised by a Youth Service Development Council.

The Albemarle Committee's inquiry extended only to England and Wales, youth provision in Scotland having already been the subject of reports by advisory bodies; but some of its main recommendations applied to Scotland, while others reflected the existing Scottish position. A Standing Consultative Council on Youth Service in Scotland, with functions similar to those of the Youth Service Development Council for England and Wales, was set up by the Secretary of State for Scotland in December 1959. Between 1960 and 1962 two one-year training courses in Youth Leadership for full-time youth leaders and organisers were held at Moray House College of Education. More money is being made available from central funds to national voluntary organisations in Scotland and, as in England and Wales, increased expenditure on youth services by Scottish education authorities is taken into account in calculating the Exchequer general grant.

A White Paper on the development of the Youth Service was presented to the Northern Ireland Parliament in 1961. This did not propose any change in the general pattern of the Youth Service but local education authorities were urged to take a more active part in youth work than they had previously done. Such changes as required statutory authority were given effect in the Youth Welfare, Physical Training and Recreation Act (Northern Ireland), 1962. The Youth Committee which was set up in Northern Ireland in 1944 was retained but its functions were extended to reflect the larger part to be played in youth welfare by the local education authorities and sports organisations.

The Voluntary Organisations

The backbone of the youth services is the voluntary organisations. Although their programmes vary greatly, most of them provide educational and religious activities as well as social and recreational pursuits for their members, and all of them seek to inculcate high ideals of personal conduct and service to the community.

Twenty-six large national voluntary youth organisations are constituent members of the *Standing Conference of National Voluntary Youth Organisations*, a consultative body which takes action only in the name of its member bodies and with their consent. A further 22 bodies are associate or observer members, for example, the Church of England Youth Council, which represents some 200,000 young people who are members of clubs sponsored by the Church of England. These major organisations have a total membership of some 3 million young people under 21. The corresponding body in Scotland is the *Scottish Standing Conference of Voluntary Youth Organisations*, and in Northern Ireland the *Standing Conference of Youth Organisations*.

Among the youth organisations with a mainly religious origin and purpose are the Young Men's Christian Association (YMCA) and Young Women's Christian

Association (YWCA), with approximately 36,000 and 20,500 members under 21 respectively; the Boys' Brigade (164,000), the Church Lads' Brigade (16,000), the Girls' Life Brigade (64,000), the Girls' Friendly Society (23,000), Girls' Guildry (33,000), the Methodist Association of Youth Clubs (172,000), the Salvation Army Youth Organisations (67,000), the Catholic Young Men's Society of Great Britain (25,000), the National Federation of Catholic Youth Clubs (35,000), the Young Christian Workers (17,000), the Grail (13,000), and the Association of Jewish Youth (15,000).

The Boy Scouts Association and Girl Guides Association have world-wide affiliations; they are undenominational and non-political, and were founded by Lord Baden-Powell in 1908 and 1910 to develop character and good citizenship in boys and girls. They have various sections, based on age groups, but the largest number are under 16 years. Their total United Kingdom membership is about 518,000 scouts and 530,000 guides.

The National Association of Boys' Clubs, with over 2,000 affiliated clubs and 149,000 members, and the National Association of Youth Clubs, with over 2,500 affiliated clubs and 163,000 members, are concerned mainly with the 14 to 20 age-group. Each affiliated club has its own rules, but all try to give their members opportunities to take part in physical, mental and social activities, to develop their capacities and grow to maturity as individuals and members of society. Representatives from clubs form local committees and these send representatives to the national members' councils.

The National Association of Training Corps for Girls, with about 8,000 members, comprises the Girls' Training Corps, the Women's Junior Air Corps and the Girls' Nautical Training Corps; all wear uniform and formal discipline is encouraged. The pre-Service organisations for boys (the Combined Cadet Force, Sea Cadet Corps, Army Cadet Force and Air Training Corps), combine social, educational and physical development with training for possible entry into the armed forces; their combined membership is about 170,000.

The National Federation of Young Farmers' Clubs in England and Wales has nearly 38,000 members between 10 and 25 years old, the Scottish Association of Young Farmers' Clubs has nearly 7,000 and Northern Ireland Young Farmer Clubs over 5,500 members: in addition to encouraging interest in agriculture and appreciation of country life, the clubs provide training in the arts of citizenship and develop ability to serve the community.

The Welsh League of Youth (Urdd Gobaith Cymru) has a membership of about 48,000; its aim is the 'development of Christian citizenship among the youth of Wales', and its work takes full account of the Welsh background of its members.

The Youth Hostels Associations in England and Wales, Scotland and Northern Ireland have a network of hostels for walkers and cyclists, particularly intended for young people of limited means. They seek to promote knowledge and love of the countryside, and are closely linked with each other and with similar organisations in other countries.

Adult organisations with youth sections include the British Red Cross Society, St. John Ambulance Brigade and the leading political parties.

Other Organisations Concerned with Youth Work

King George's Jubilee Trust was established in 1935 to advance the welfare of the younger generation: the Trust Fund is applied for the benefit of the young people of the United Kingdom. King George V sanctioned the inauguration of the Trust by the

then Prince of Wales, and the dedication to it of the nation's gift of approximately £1 million, subscribed as a thankoffering to mark his silver jubilee. The income is augmented by gifts and legacies, including £80,000 raised during the Silver Jubilee Appeal in 1960, and the Trust has made grants of well over £1 million for the benefit of young people.

The *Duke of Edinburgh's Award Scheme* for boys is operated by local authorities, schools, youth organisations, industrial firms and other bodies, and is designed as a challenge to boys between the ages of 14 and 19 to reach standards of achievement in three progressive stages in leisure-time activities comprising public service, expeditions and pursuits and physical fitness. A similar scheme for girls between the ages of 14 and 20 is in three progressive stages covering the following sections: design for living, interests, and adventure and service.

The *Outward Bound Trust* maintains five schools for boys which offer 26-day character-building courses, based on adventure and testing experience. A similar school for girls, with modified courses, will open in the summer of 1963. There will then be accommodation for some 800 boys and the same number of girls.

The aims of the *Central Council of Physical Recreation*, the *Scottish Council of Physical Recreation* and the *National Playing Fields Association* bring them into touch with many youth organisations: their activities are described in Chapter 18: *Sport*.

In addition to organisations on a nation-wide basis, there are a large number of town, district or village social clubs run by voluntary groups for general or particular purposes; photographic societies, folk dance, table tennis or jazz clubs, for instance. In small communities social clubs may not be specifically for young people but those with the more strenuous activities (for example, tennis clubs) usually have a high proportion of young people as members.

PLANNING AND HOUSING

TOWN AND COUNTRY PLANNING

Britain is one of the most densely populated areas in the world and it is essential to plan land use if a satisfactory national distribution of employment and population is to be secured, agriculture safeguarded, the amenities of the countryside preserved, and the improvement of the places where people live and work sustained.

From 1909 onwards, successive Acts of Parliament recognised the principle of the planned use of land, but because the pattern of development over much of the country had already hardened into large unplanned urban concentrations the powers granted to planning authorities were inadequate for the task in hand.

The twenty years between the two world wars were decades of expansion in industry, engineering, house-building, and motor transport; the population was increasing and becoming more mobile; there was a general movement towards better standards of living, and consequently a greater need for systematic planning than had hitherto been required. At the beginning of the nineteen-thirties a major effort was made to consolidate and strengthen planning law and to extend the planning powers of central and local authorities to the point at which they could exercise effective control. This resulted in the Town and Country Planning Acts of 1932 which remained the basis of planning law for fifteen years.

Although inter-war planning legislation improved sanitary and environmental conditions and did something to preserve amenities, its general effect was less satisfactory than might have been expected, mainly because it failed to deal adequately with the problems involved in the payment of compensation to land and other property owners who stood to lose by the introduction of positive planning schemes. Local authorities often hesitated to exercise their powers effectively for fear of being involved in financial liabilities beyond their means, and as a result much unregulated urban development and spoliation of the countryside continued to take place.

Renewed efforts to tackle these problems were made immediately before and during the second world war. Between 1937 and 1942 three expert committees were appointed to study and report upon (1) the unregulated growth and spread of industry, (2) the hampering of planning by the financial and administrative difficulties of compensation and betterment and (3) the encroachment of urban development upon the countryside. After the war other committees studied the question of new towns and national parks.

Almost all the principal planning recommendations of these committees have now been incorporated in Acts of Parliament, as follows: the New Towns Acts, 1946 to 1959; the Town and Country Planning Acts, 1947 to 1959; the National Parks and Access to the Countryside Act, 1949; the Town Development Act, 1952; the Housing



A scene from the opera
King Priam by Michael
Tippett, first performed
in 1962.



Students at the Royal
Ballet School, London.



Local authorities sponsor cultural and artistic activities (see p. 225) such as these, arranged by the London County Council:

an art exhibition in Embankment Gardens by the river Thames;



an exhibition of sculpture, with 'Les Baigneurs' by Picasso, at Battersea Park;



carol singing at the Royal Festival Hall by 3,000 girls and boys from London schools.

and Town Development (Scotland) Act, 1957; the Local Employment Act, 1960; and the Caravan Sites and Control of Development Act, 1960. Town and country planning in Northern Ireland is governed by the Planning and Housing Act (Northern Ireland), 1931; the Planning (Interim Development) Act (Northern Ireland), 1944; and the Planning Acts Amendment Act (Northern Ireland), 1944.

Planning in Great Britain

The Town and Country Planning Act, 1947, and the Town and Country Planning (Scotland) Act, 1947, are the principal Acts that govern the pattern of land use in Great Britain. They provide for the co-ordination of planning by means of development plans drawn up by local planning authorities and approved by the Minister of Housing and Local Government or the Secretary of State for Scotland; and they control development by making it subject, generally, to the permission of a local planning authority or of a central Government department. They also give extensive powers to public authorities to acquire and develop land for planning purposes, and deal with certain questions of amenity, for instance, the preservation of buildings of special historic or architectural interest, and of trees and woodlands, and the control of advertisement display.

Compensation for loss of development value through the refusal of planning permission is paid by the Government according to a formula laid down in the 1954 Town and Country Planning Acts. Compensation to owners whose land is compulsorily purchased is paid by the acquiring authorities, the amount being based (under the Land Compensation Act, 1961, and, in Scotland, the Town and Country Planning Act, 1959) on the price the land might have fetched if sold in the open market, with safeguards for local authorities against paying for value brought about by their own activities and for owners against depreciation which the threat of public acquisition might cause. In general, expenditure on planning purposes (other than schemes of major redevelopment) is taken into account in the amount of the general grant paid to local authorities under the Local Government Act, 1958, and the Local Government and Miscellaneous Financial Provisions (Scotland) Act, 1958.

Development Plans

Under the Town and Country Planning Acts, 1947, local planning authorities (in England and Wales, the councils of counties and county boroughs and, in some areas, joint planning boards; and in Scotland, councils of counties and of large burghs, and the councils of the two small burghs of St. Andrews and Thurso) were required to prepare and submit development plans covering the whole of their areas to the Minister of Housing and Local Government and to the Secretary of State for Scotland respectively. Each development plan includes maps and a written statement describing the major projects in the plan and may be supplemented by a report or survey giving the background to the plan in terms of existing land use, communications and similar matters. Plans normally cover a period of about 20 years; they must be reviewed at least once in every five years, and may be extended and altered at any time, so that they are kept up to date. Development plans for the whole of Great Britain (except the remoter parts of Scotland) have now been submitted to the appropriate ministers, and almost all have been approved.

Many local planning authorities have submitted amendments and additions to their original plans and a number have completed their first five-yearly review. In recognition of the need to check the further growth of large built-up areas (1) to prevent adjacent towns from merging into one another, and (2) to preserve the character of a number of

towns, proposals have been put forward for the incorporation of green belts into many development plans. It has been generally accepted that this necessitates the provision of more land for development beyond the green belt and the more intensive use of land within existing towns.

Local planning authorities' proposals for altering or adding to their development plans must be advertised and the ministers concerned must consider objections and representations from the public. Usually a public local inquiry has to be held before the proposals are decided. A development plan or its amendment can be legally challenged only on the ground that it is *ultra vires* or that statutory requirements have not been fulfilled, and such a challenge must be made to the High Court within six weeks of publication of the approval or amendment of the plan.

The Location of Industry

The Town and Country Planning Acts, 1947, and the Local Employment Act, 1960, contain provisions relating to the location of industry. General problems of industrial development are dealt with jointly by a number of Government departments, but the consent of the local planning authority is, as a rule, required for any new industrial building, any extension of a building or any change in the use of an existing building. These powers, together with the more positive powers of the Board of Trade to inhibit the expansion of industry in some areas and encourage it in others, have had a considerable effect on the location of industry; during the past decade new smaller and more widely dispersed centres have grown up, notably in southern England (see p. 261).

New Towns

The New Towns Act, 1946, gives the Minister of Housing and Local Government and the Secretary of State for Scotland, power to make an order designating any area of land (which may include as its nucleus the area of an existing town) as the site of a proposed new town. The appropriate minister must consult the local authorities concerned on the proposal and must be satisfied that it is in the national interest that the land should be developed as a new town. Once the site has been designated, the minister appoints a development corporation (consisting of a chairman and up to eight other members) to be responsible for the development of the new town. A master plan showing how the town is to be built is then prepared, and this becomes the basis for development proposals, each of which covers a part of the town. Each proposal is submitted to the responsible minister, who must consult the local planning authority and, together with the Treasury, be satisfied with the proposal on economic grounds before giving approval.

The development corporations have powers in general (subject to the consent of the Minister of Housing and Local Government or the Secretary of State for Scotland) to acquire, by agreement or compulsory purchase, any land or property in the designated areas which is necessary for their purposes, and they may provide houses, flats, commercial and industrial premises, estate roads and other buildings or services essential for the development of the towns. In England and Wales the Minister of Housing and Local Government has made a special development order to exempt the development corporations from having to obtain planning permission from the local planning authorities; in Scotland the Secretary of State has made a similar order in respect of Cumbernauld new town.

The capital cost of developing the new towns (many of which are now making a profit) is advanced to the corporations from public funds and must be repaid on terms approved by the ministers with the concurrence of the Treasury. The corporations

submit annual reports (which include copies of their audited accounts) to the Minister of Housing and Local Government or to the Secretary of State for Scotland, who lay them before Parliament.

As each new town in England and Wales is substantially completed the development corporation will be dissolved and, under the terms of the New Towns Act, 1959, its assets and liabilities will be handed over to a central agency—the Commission for New Towns. The Commission, which came into being in 1961 and will operate during the whole period of new town consolidation, has already assumed responsibility for Crawley and Hemel Hempstead, where large scale immigration from London is at an end. It is responsible for maintaining and enhancing the value of the land entrusted to it; in discharging its functions it is required to have regard to the purpose for which the towns were established, and the convenience and welfare of the people working and living in them. No new towns central authority has been proposed for Scotland, where new town development is at a less advanced stage.

Seventeen new towns have been established in Great Britain: thirteen in England and Wales and four in Scotland. Eight of the new towns in England and Wales (Basildon and Harlow in Essex; Hemel Hempstead, Stevenage, Hatfield, and Welwyn in Hertfordshire; Crawley in Sussex; and Bracknell in Berkshire) are designed to help in absorbing excess population from the Greater London area; the five others (Corby in Northamptonshire; Aycliffe and Peterlee in Durham; Cwmbran in Monmouthshire; and Skelmersdale in Lancashire) are to serve the special needs of their areas. The Scottish new towns (East Kilbride in Lanarkshire; Glenrothes in Fife; Cumbernauld in Dunbartonshire; and Livingston in West Lothian) will help in housing the surplus population from Glasgow. Livingston is also to be a focus for industrial activity in the central belt of Scotland.

The new towns represent a notable achievement in positive land use. They are generally recognised as one of the most successful post-war experiments, both socially and industrially, and as a profitable long-term investment. Many thousands of people have moved into the new towns during the past decade and to meet their needs an extensive building and civil engineering programme has provided houses, flats, factories, schools, shops, roads, water supplies and sewerage on a very large scale. Additional gas and electricity supplies, more police, fire and bus stations, extra postal, telegraph and telephone services and new health centres have also been provided and most of the towns are well equipped with parks and playing fields of various kinds.

Sites for all the more important public buildings (the town hall, the central post office, the public library, the health centre, the college of further education and the magistrates' court) are to be found in the town centres, where some of the most recent planning ideas (notably the separation of the pedestrian from the motorist) are being put into practice. In a few of the towns the public buildings have already been built and are in use; elsewhere they are under construction or planned. It is expected that the new towns will, in time, become important regional centres, and though they still provide fewer facilities for commercial entertainment than are to be found in older established towns of similar size, plans exist for cinemas, hotels, restaurants and dance halls which will be built as soon as the populations are large enough to give the necessary support.

Under the New Towns Act, 1946, Parliament approved a consolidated fund of £50 million to provide for advances to the development corporations for work on the new towns. This fund was increased by subsequent Acts and, under the 1959 Act, stands at £400 million. A total of over £310 million has been advanced to the corporations during the past fifteen years.

Town Development Schemes and War-damaged Cities

The Town Development Act, 1952, makes provision for the relief of congestion in large industrial towns in England and Wales by encouraging the transfer of population and industry from these areas to appropriate country districts. Schemes have been approved for moving more than a quarter of a million people and, so far, twenty thousand families have moved under arrangements of this kind.

The Housing and Town Development (Scotland) Act, 1957, makes similar provision for Scotland; agreements between Glasgow Corporation and other local authorities provide for the housing of over 8,000 Glasgow families outside the city.

Proposals by the local authorities of 44 cities and towns for the reconstruction of areas of extensive war damage, covering some 1,650 acres, have been approved. The estimated cost of £92 million for acquiring and clearing this land in preparation for redevelopment attracts grant under the 1947 Town and Country Planning Act; in addition the central areas of several provincial cities (for instance Bristol, Coventry, Exeter, Kingston upon Hull, Portsmouth, Plymouth, and Southampton) have been almost entirely rebuilt. In the county of London, some six and a quarter square miles of redevelopment of all kinds should be finished within the next ten years; while in the City of London, projects valued at about £86 million have been completed. Redevelopment of outworn and obsolete areas is also taking place in many towns: Glasgow, for example, has started a programme of rebuilding 29 areas, housing nearly a third of its population and accommodating much of the industry and commerce of the city. Detailed proposals for three of these areas have been approved and the work of clearance and rebuilding is well advanced in one of them—the Gorbals area.

National Parks and Access to the Countryside

The National Parks and Access to the Countryside Act, 1949, provided that certain areas of beautiful country in England and Wales should become national parks, where the characteristic landscape would be safeguarded and facilities for open-air recreation provided or improved.

A National Parks Commission was set up by the Act and its work has resulted in the establishment of ten national parks: the Peak District, the Lake District, Snowdonia in North Wales, Dartmoor in Devon, the Pembrokeshire Coast, the North York Moors, the Yorkshire Dales, Exmoor in Devon and Somerset, Northumberland (comprising most of the upland country from the Cheviots in the north to the Roman Wall in the south), and the Brecon Beacons in South Wales. These parks cover a total area of 5,254 square miles, almost one-eleventh of the area of England and Wales, and have various forms of administration: two of the parks are administered by joint planning boards, four by special park planning committees of the four county councils in whose areas they are situated, and four (which fall within the area of more than one county council) by park planning committees of each of the constituent county councils, advised by a park joint advisory committee concerned with the park as a whole. All these authorities control development in the parks (which are still in private ownership) and take such steps as they think fit to preserve and enhance the natural beauty of the landscape and to promote enjoyment of the area by the public. For instance, trees are planted to screen blemishes on the landscape, unsightly structures are removed, new building is made to harmonise with the natural surroundings, advertisement displays are reduced, and car parks and camping sites are provided in suitable localities. Government grants at the rate of 75 per cent are available for certain measures designed to enhance natural beauty and improve recreational facilities.

There are no National Parks in Scotland but the National Parks Working Party, set up to consider the five areas recommended as national parks by the National Parks Committee, has submitted a report on each of them. These are: Loch Lomond—Trossachs; Glen Affric—Glen Cannich—Strath Farrar; Ben Nevis—Glen Coe—Black Mount; the Cairngorms; and Loch Torridon—Loch Maree—Little Loch Broom. Close supervision is being maintained over development in these areas by means of Scottish National Parks Directions, which require the local planning authorities concerned to refer proposed developments to the Secretary of State for Scotland for consideration.

The National Parks Commission also has power to designate areas outside the national parks in England and Wales as 'areas of outstanding natural beauty'. Twelve of these areas have been designated and a further ten are under consideration. Government grants are also available for certain measures designed to enhance the natural beauty of these areas.

Designation of a park or area of outstanding natural beauty does not, of itself, mean that the general public has right of access. Local planning authorities must survey the extent to which land is already open to the public, and may increase it, where desirable, by means of agreements with owners or by access orders. Government grants are available towards the cost of making such agreements or orders and in the Peak District and the Yorkshire Dales tracts of moorland have been opened to the public in this way.

A survey of all footpaths and bridleways in England and Wales is being made by local authorities as a comprehensive national record of public rights of way; and in some areas existing footpaths and bridleways are being linked to form long-distance routes, which will become continuous rights of way. Responsibility for making proposals for long-distance routes rests with the National Parks Commission; once the proposals are approved by the Minister of Housing and Local Government, it falls to the local authorities to give effect to them. Seven routes, covering approximately 1,000 miles, have been approved. Large stretches of these paths are already public rights of way and progress is being made in negotiating the footpath agreements required to complete them. The establishment of further routes is also under discussion.

National Forest Parks

The Forestry Commission has formed, and opened to the public, seven National Forest Parks in Great Britain: Argyll, Glen Trool, Glen More, and the Queen Elizabeth Forest Park in Scotland; the Forest of Dean and the Wye valley woods on the borders of England and Wales; Snowdonia in Wales; and the Border Forest Park (adjoining the Northumberland National Park to the westward), which includes forests on the borders of Northumberland and Cumberland in England and of Roxburgh in Scotland. The total area of the seven parks approaches half a million acres, including planted areas and unplantable moorland and mountains. Camping facilities are provided in most of the parks.

The historic New Forest, in Hampshire, although not a National Forest Park, is also open to the public.

Nature Conservation

The responsibility for nature conservation rests with the Nature Conservancy, which derives its powers from the National Parks and Access to the Countryside Act, 1949. The object of conservation is to influence soils, water, vegetation and animal

life by means of research, experiment and control, and it entails the acquisition and management of a representative series of reserves, as well as the establishment of laboratories for use in long-term research schemes (see p. 214) and the making of grants-in-aid for specified research.

The Nature Conservancy is responsible for some 95 nature reserves in Great Britain, with a combined area of about 179,700 acres, of which nearly 40,000 acres comprise the Cairngorms, the largest reserve in Britain and one of the largest in Europe. Seven other areas (mostly in the north) are managed by local authorities, using their powers under the National Parks Act, in consultation with the Conservancy.

Eleven forest nature reserves have also been set up; of these, seven have been created by agreement between the Forestry Commission and the Nature Conservancy and consist of forest land managed under joint supervision; one is the result of a similar arrangement made with the Crown Estate Commissioners; two derive from Forest Nature Reserve Agreements made with the Duchy of Cornwall; and one from an agreement made with the Department of Agriculture and Fisheries for Scotland.

Preservation of Amenities

Responsibility for the preservation of the historic, scenic and architectural beauties of Great Britain is vested mainly in the Minister of Housing and Local Government, the Secretary of State for Scotland, and the local planning authorities. The ministers have the duty of compiling lists of buildings of special architectural or historic interest and have so far listed more than 82,000 buildings. Local authorities have special powers to prevent the demolition of such buildings and to control other works that would damage their character. The Ministry of Public Building and Works is also concerned, being responsible for the maintenance of royal parks and palaces, for the protection of ancient monuments (under the Ancient Monuments Acts), and for making grants (on the recommendation of the appropriate Historic Buildings Council) for the repair and maintenance of buildings of outstanding historic or architectural interest or their contents and for the upkeep of adjoining land. About 600 of the more important protected monuments in Britain are in the care of the Ministry; and grants totalling over £3½ million have been offered and accepted towards the cost of urgently needed repairs to over 800 historic buildings in England, Scotland and Wales.

Under the Town and Country Planning Acts, 1947, local planning authorities have power (a) to protect trees and woodlands by means of tree preservation orders (about 3,500 of which are in force throughout Great Britain); (b) to prevent mineral workings becoming permanent eyesores by attaching suitable conditions to planning permissions; and (c) to restrict or regulate the display of advertisements in the interests of amenity or public safety. Local authorities are also empowered, under the Clean Air Act, 1956, to declare 'smoke control areas', in which the emission of smoke from chimneys constitutes an offence, and to make grants towards costs incurred by owners and occupiers of premises in these areas in making the necessary changes in their appliances.

Unofficial amenity societies, wholly dependent upon the support of their members, include: the Council for the Preservation of Rural England, founded in 1926 to organise concerted action to secure the protection of rural scenery and of town and country amenities from disfigurement or injury; the Association for the Preservation of Rural Scotland, founded in 1927 for the protection of rural scenery and of the amenities of country districts and towns and villages in Scotland; the Council for the Preservation of Rural Wales, founded in 1928 to organise and advise upon concerted action for the protection of the beauty of Wales; the Commons, Open Spaces and Footpaths Preservation Society; the Ramblers' Association; the Society for the

Protection of Ancient Buildings; the Pilgrim Trust; the National Trust for Places of Historic Interest or Natural Beauty in England, Wales and Northern Ireland; and the National Trust for Scotland. The National Trust for England, Wales and Northern Ireland (which was founded in 1895 and now has some 109,000 members) is (apart from the Crown) the largest land-owner in the United Kingdom. It has acquired, mainly through gifts, over a thousand properties, which it holds for the enjoyment of the public; it administers more than 250,000 acres of land of great natural beauty; and it owns many fine gardens. The National Trust for Scotland, an independent body, founded in 1931 to promote the preservation of places of historic or architectural interest or of natural beauty in Scotland for the benefit of the public, now has about 23,000 members and has under its care over 60 properties, covering in all over 70,000 acres.

The Council for Nature (founded in 1958) is a foundation of about 300 natural history societies and voluntary bodies concerned with nature conservation and represents the interests of some 80,000 naturalists at public inquiries on developments likely to threaten British flora and fauna. The Council, which undertakes practical tasks of nature reserve management as well as information work on all aspects of natural history in the British Isles, receives grants from the Ministry of Education, the British Broadcasting Corporation and the Carnegie United Kingdom Trust.

Planning in Northern Ireland

The Planning and Housing Act (Northern Ireland), 1931, which is the main source from which power to prepare a planning scheme is derived, provides for the preparation by local authorities of planning schemes for development or redevelopment of their areas, with the general object of securing proper sanitary conditions and amenities in connection with the laying out and use of land. The Interim Development Act of 1944 enables persons wishing to carry out development to do so without delay, while ensuring that such development shall conform to the provisions likely to be included in the planning scheme for the area.

The provisions of the Acts brought all land in Northern Ireland under planning control and required every local authority to prepare a planning scheme for its area. Interim control is exercised in accordance with the section of the 1944 Act which requires that, where application is made to an authority for permission to develop, the authority may grant the application conditionally or unconditionally or may refuse it altogether. In the event of a refusal or conditional approval, the applicant has a right to appeal to the Ministry of Health and Local Government for Northern Ireland (which is the department primarily responsible for the administration of the planning Acts) to have the matter determined by the Ministry or, if the appellant wishes, by an independent person appointed by the Ministry.

Local planning authorities in Northern Ireland have made appreciable progress in the preparation of outline plans which indicate broadly the proposals for their areas, thus providing a foundation for the preparation of more detailed plans at a later stage and facilitating materially the work of interim development control. In addition, an interim report on Housing Sites in the Belfast Area (in which it was estimated that the areas surveyed would provide sites for about 5,000 houses) has been published as part of a Government-sponsored plan for the Belfast region.

Industrial Development

The Ministry of Health and Local Government co-operates with the Ministry of Commerce in the selection of industrial sites in order to secure the best possible use of

the land and to facilitate the efficient provision of housing and other services in connection with industrial expansion.

Nature Conservation

The committee on nature conservation in Northern Ireland was appointed in 1960 to consider the protection of the natural flora and fauna and the physical features of scientific interest in Northern Ireland, and to make recommendations on measures for their conservation and control, including the protection of wild life.

Northern Ireland Forest Park

Northern Ireland's first forest park at Tollymore Park, Newcastle, County Down, was opened to the public in 1955. Situated at the foot of the Mountains of Mourne, it covers an area of 1,200 acres. It contains an arboretum comprising a wide variety of native and exotic trees, and is rich in mountain, river and parkland scenery. Caravan facilities and a camping site for youth organisations are available.

HOUSING

Between 1945 and the end of 1961 over 4 million new houses and flats were built. Despite this achievement much still remains to be done before all the housing problems facing the country are solved. The nationwide shortage of housing accommodation which existed in 1945 as the result of enemy action, the gradual deterioration of old houses and the increase in the number of households, has been alleviated, but there are still serious shortages to be overcome in some areas. Other housing targets are the completion of the slum clearance programme, the provision of more accommodation suitable for elderly people, the elimination of overcrowded living conditions and the modernisation and conversion of older houses.

Responsibility for formulating housing policy and supervising the housing programme is borne by the Minister of Housing and Local Government in England and Wales, by the Secretary of State in Scotland and the Minister of Health and Local Government in Northern Ireland. The actual provision of housing accommodation in any area is the concern of the local authority, which is obliged to plan for new housing and slum clearance where necessary, to see that adequate standards are maintained in newly built and existing houses and to ensure, as far as possible, that housing conditions are satisfactory in that area. In selecting tenants for council dwellings local authorities give preference to families living in overcrowded or unsatisfactory conditions. In England and Wales and Northern Ireland the local housing authorities are the councils of county boroughs, boroughs (including metropolitan boroughs), urban districts and rural districts, the London County Council and the Common Council of the City of London. In Scotland all town and county councils are housing authorities.

There are nearly 17 million houses in Britain, over 14 $\frac{3}{4}$ million in England and Wales, 1,600,000 in Scotland and about 390,000 in Northern Ireland. About 3 $\frac{3}{4}$ million of the houses in England and Wales and over half a million in Scotland are owned by public authorities, that is about one house in four. Over 6 $\frac{1}{2}$ million houses, more than one in three, are in owner occupation; most of the remainder (mainly older houses) are rented from private landlords. Today one family in four lives in a post-war dwelling. Of houses and flats built since 1945, over 63 per cent were built by local authorities (that is, generally, by private builders under contract to local authorities). Since the restrictions on private building which were necessary during the shortages of the

post-war period were abolished, in 1954, the proportion of building undertaken by private enterprise has risen steadily.¹ In 1961 the total number of houses built was 303,161, of which 180,727 were privately sponsored.

New Building

Private enterprise is therefore responsible for over half the housing being built today in Britain; the rest is built by local authorities, new towns development corporations and certain Government departments (for housing families of the armed forces or other services). Housing associations, which are non-profit-making bodies providing houses for letting rather than for sale, are increasing in number, as are self-help groups whose members build houses for their own occupation in their spare time. Local authority housing is normally built for letting; privately sponsored dwellings for owner occupation.

Most of the new dwellings in Britain are houses (usually of two storeys); the remainder are flats or maisonettes in blocks of from 2 to 13 or even 24 storeys. High blocks are generally built in central urban areas where they replace old, overcrowded dwellings. In the new towns and on new housing estates they provide focal points and help planners to achieve high density while still providing open spaces.

Accommodation in a house designed for a family of four or five persons includes one or two living rooms, a kitchen, a store, a bathroom and a w.c. and two or three bedrooms. A typical 3-bedroom house built by a local authority in England and Wales in 1961 had a superficial area of about 898 square feet and cost £1,786 to build.

Provision for the growing number of old people in the population is a housing priority. Encouraged by Exchequer subsidies local authorities have been building a greater proportion of smaller units suitable for the elderly. The percentage of one-bedroom dwellings built by local authorities has risen from 7.7 per cent in 1951 to 26.1 per cent in 1961 in England and Wales and from 2.4 per cent to 18.8 per cent in Scotland.

Control of building standards is the responsibility of the central departments, who issue manuals of guidance on design and layout for different types of houses and flats provided by local authorities. Research into building techniques and into new methods of house construction, as well as into the needs of families, is carried out by the Development Group of the Ministry of Housing and Local Government, the Building Research Centre, the architects' departments of major local authorities and the research groups in big constructional firms.

Slum Clearance

Returns made by local housing authorities in 1955 indicated that there were about one million slum dwellings in Great Britain which ought to be cleared. In England and Wales about 850,000, or 6.5 per cent of all houses, and in Scotland over 150,000, about 10 per cent, were estimated to be unfit for human habitation and due for demolition. In Northern Ireland the number of such houses was estimated in 1959 at about 50,000.

In the five years 1957 to 1961, local authorities in England and Wales demolished or closed 285,984 unfit houses, involving about 807,233 occupants; while in Scotland

¹The proportion relates to Britain as a whole. In Scotland the proportion of private building to local authority building is lower than in England and Wales. Out of a total of 27,230 dwellings built in Scotland in 1961, 7,200 (about 26 per cent) were for private owners. In Northern Ireland, in the three years 1959-61, out of a total of 18,430 new houses, 8,448 were built for private owners.

51,461 houses were demolished or closed during the same period. In Northern Ireland 2,500 dwellings were demolished or closed by local authorities in the three-year period 1959-61.

Well over half the 1,469 housing authorities in England and Wales should have completed their 1955 programmes by the end of 1965. Many of them, since the process of replacing unfit houses is a continuous one, have submitted further proposals for increased programmes. Within the next 10 years the great majority of them should have succeeded in getting rid of all their present slums. In certain areas, however, particularly the older industrial towns, and including Birmingham, Liverpool and Manchester, three of the biggest cities in the country, the proportion of unfit houses is so high that clearance will take much longer.

To help in those areas of Great Britain where the number of slum houses is so large that it would not be practicable to replace all of them within the next few years, local authorities can acquire houses unfit for human habitation and 'patch' them in order that they may be occupied for a strictly limited period pending their demolition. The intention is that these houses should be demolished as soon as possible: the temporary repairs are not intended as an alternative to slum clearance. Exchequer contributions are available to meet part of the costs of acquisition and essential repairs.

Housing authorities are obliged to see that other accommodation exists, or can be provided by them, for persons to be displaced from slum clearance areas. Where an unfit house is demolished by order of the local authority and the owner retains his land, he normally receives no compensation. But if the local authorities acquire an unfit property in order to demolish it themselves and to rebuild on the land, the normal basis of compensation is the market value of the house as it stands or the value of the site after clearance, whichever is the less. In England and Wales there are, however, special provisions for owner-occupiers who bought between 1939 and 1955, and they receive full compensation regardless of whether the house is being acquired by the authority or not; similar terms apply to business occupiers. In England, Wales and Scotland the slum clearance code provides for special payments for the good maintenance of unfit houses and business occupiers may receive hardship payments in certain cases. In Northern Ireland provision is made for payments to owner-occupiers, business occupiers and for good maintenance of older houses.

Housing Finance

The initial capital cost of houses built by or for local authorities is met by raising loans; current expenditure, including loan repayment and interest on loans, is met from rents, rates and where available Exchequer subsidies. Local authorities may raise loans for housing either in the open market or, where borrowing from private sources at normal rates of interest is impossible, by borrowing from the Public Works Loan Board (see p. 77). Exchequer loans of up to a maximum of £25 million in England and Wales and £3 million in Scotland are available to approved housing associations in order to finance the building of houses to let at unsubsidised rents.

Loans to enable persons to buy their houses by a system of instalment purchase are available from various sources, including building societies, insurance companies, industrial and provident societies and local authorities.

Building societies, of which there are about 730, are the most important of these agencies. They do not themselves build houses but provide long-term loans on the security of houses bought for owner-occupation, whether newly built or older houses, or houses under construction. Loans are usually repayable over periods of 20 or even 30 years, by equal monthly instalments to cover capital and interest. The societies'

funds are derived mainly from investment of relatively modest sums by the general public.

Many local authorities operate a scheme whereby, for a house costing up to £2,500, they guarantee part of the loan made by a building society so that an advance greater than normal (up to 95 per cent of the value of the house in some cases) may be made to the purchaser. The Exchequer undertakes to share any liability local authorities may incur under this scheme. Local authorities also have power to make loans under the Housing Acts for the acquisition, conversion, improvement, repair and alteration of houses. Under the House Purchase and Housing Act, 1959, they may make loans of up to 100 per cent of the house's value.

Building Subsidies and Improvement Grants

Housing subsidies, at varying rates and for varying purposes, have been provided in Britain since 1919, when they were first introduced to facilitate the building of houses for letting at moderate rents.

After the second world war subsidies at higher rates, payable annually for 60 years from the year of building completion, were provided for all new housing accommodation built with ministerial approval by the local authorities, by new towns development corporations, or by housing associations under arrangements with local authorities. In England and Wales a standard rate of subsidy was paid for ordinary houses or flats built to meet general needs, and higher rates of subsidy were provided for certain types of housing (such as high blocks of flats on expensive sites), housing built for particular purposes (for instance, for the agricultural population) and housing in special areas (such as poor areas of low rate-paying capacity).

During the 1950s various systems of subsidy were introduced under successive Housing Acts. The present subsidies in England and Wales, announced in the Government White Paper of 1961 and implemented by the Housing Act, 1961, provide for a flexible system of general subsidy on all types of housing. The level of subsidy depends on the financial need of the housing authority. Authorities with inadequate resources receive a basic subsidy of £24 a year for each house built, which may be increased in stages to £40 for authorities with particularly low reserves. For other authorities the basic rate is £8. Additional subsidies exist for high flats and expensive sites. These provisions enable authorities to build where need exists and to ensure that Exchequer assistance is available chiefly for those authorities in most need of help.

Local authorities and private owners in England and Wales can obtain Exchequer assistance for the improvement of existing houses or conversion of other buildings for housing. Cash grants can be made by local authorities, with Exchequer assistance, to persons converting or improving existing buildings for housing at a cost of over £100 per dwelling. The grants may amount to half the cost, with a maximum grant of £400 for each dwelling. There are certain technical conditions which the dwellings as improved or converted must fulfil, to ensure that public money is only spent on property that will provide satisfactory accommodation for a sufficiently long period. Grants for similar work in houses owned by local authorities may also be paid by the Minister of Housing and Local Government, but on an annual basis over 20 years. In either case, the payment of grant is at the discretion of the local authority, or the Minister, as the case may be. Local housing authorities are, however, obliged to make grants called 'standard grants', for the provision in houses of a bath in a bathroom, hot-water supply, water closet, wash basin, and food store; these cash grants are to cover half the cost of the work, subject to a maximum grant of £155 or smaller sums

if not all of the five items are needed. Similarly the Minister is obliged to make standard grants to local authorities, but again on an annual basis over 20 years. The Acts under which these improvement grants are now available are the Housing (Financial Provisions) Act, 1958, the House Purchase and Housing Act, 1959, and the Housing Act, 1961. In 1961 over 128,580 improvement grants were made.

Building subsidies and improvement grants are also provided in Scotland and Northern Ireland; the amounts of subsidy are generally higher owing to different circumstances. In Scotland the Housing (Scotland) Act, 1962, provides for subsidies according to a local authority's financial needs. The basic subsidy is £32 per house for authorities with inadequate resources and £12 per house for the other authorities. There are higher rates of subsidy for housing for special purposes (such as overspill, multi-storey development, agricultural workers). Grants are also available to local authorities and private owners for the improvement or conversion of existing properties, and to private owners for the provision of new houses for farm workers. In Northern Ireland annual subsidies are paid to local authorities, the Northern Ireland Housing Trust¹ and housing associations; in addition, 'lump sum' subsidies are paid to private persons who build houses for letting or for owner-occupation. Grants are available for the provision of new houses and for the reconditioning of existing premises to accommodate farmers and approved workers.

The average annual cost of housing subsidies in Britain has been over £100 million since 1954, some three-quarters of the total being paid by the Exchequer and about a quarter by local authorities.

Control of Rents

The first Act of Parliament to restrict rents was passed in 1915, when houses were in short supply because of war-time movement of population. Rent control was originally intended as a temporary measure, but was retained by successive Acts until 1957. During this period nearly all privately owned houses let unfurnished were subject to a system of rent control which gave the tenant a fixed rent and security of tenure. Since 1954 control has not applied to lettings by local authorities, New Town Development Corporations and certain housing associations and trusts.

Since 1954 the Government has pursued a policy of progressive abolition of rent control on the grounds that the previous system was leading to deterioration and to wasteful use of the nation's stock of housing. The Rent Act, 1957, released from rent control all dwellings with a rateable value over £40 in the London Metropolitan Police District and in Scotland and over £30 elsewhere; it also freed from control all new lettings after 6th July, 1957, whatever the rateable value of the property. This Act also provided for the decontrol from time to time of further categories of houses by order, subject to approval by Parliament. For those houses remaining within control, it laid down a maximum rent which was more in keeping with the current value of money and the costs of maintenance. Security of tenure for controlled tenants is retained under the Act; a controlled tenant cannot be forced to give up possession except by a Court order, which will not be granted unless the Court is satisfied that this is reasonable and, with some exceptions, that suitable alternative accommodation is available for the tenant.

Where houses or parts of houses within the rateable value limits for rent control are let with furniture or services provided by the landlord, a different system of control

¹ The Northern Ireland Housing Trust, a statutory body, was established in 1945 to erect houses for letting, to supplement building by local authorities. The Trust has built about a quarter of Northern Ireland's post-war houses.

operates. If the tenant feels he is being overcharged, he can apply to a rent tribunal to review his rent. These tribunals are appointed and maintained by the Government (the Minister of Housing and Local Government and the Secretary of State for Scotland) but are independent, quasi-judicial bodies, from whose decisions there is no appeal, except on a point of law. The tribunal decides in each case what is a fair rent to fix for the accommodation and services provided. The rent so fixed is registered with the local authority for the district, or, in Scotland, with the tribunal, and any subsequent overcharging by the landlord is a punishable offence.

Somewhat similar measures of control and de-control apply in Northern Ireland. In 1951 legislation was passed which permitted prescribed increases in the rent of controlled houses, provided that they were maintained in good repair; and the Housing (Miscellaneous Provisions) and Rent Restriction Law (Amendment) Act (Northern Ireland), 1956, permitted an increase of one-third in the rent levels fixed by the 1951 Act where the landlord had recently incurred expenditure of a certain amount on repairs. The 1956 Act also released from control houses with a net annual value of over £50 (with certain safeguards) and houses with a net annual value of over £26 of which the landlord was in actual possession when the Act came into force, or of which he subsequently obtained possession.

THE CHURCHES

Every person living in Britain possesses the right of religious freedom as described in Article 18 of the Universal Declaration of Human Rights: he may change his religion at will, and may manifest his faith in teaching, worship and observance without interference from the community or the State. Churches and religious societies of all kinds may own property, conduct schools, and propagate their beliefs in speech and in writing.

Freedom of conscience in religious matters was achieved gradually from the seventeenth century onwards; in many cases, relaxation in the administration of laws discriminating against minority religious groups preceded the repeal of the legislation concerned. Heresy ceased to be a civil offence with the passing of the Ecclesiastical Jurisdiction Act, 1677, and the Toleration Act of 1688 granted freedom of worship to Protestant dissenters. In 1828 the repeal of the Test and Corporation Acts freed nonconformists from political disabilities and made it possible for them to be appointed to public offices; Roman Catholics gained political emancipation under the Roman Catholic Relief Act, 1829; the Jewish Relief Act, 1858, enabled Jews to become members of Parliament; while religious tests that had been imposed on prospective students and members of the academic staff of the universities of Oxford, Cambridge and Durham were successively abolished by Acts of 1854, 1856 and 1871. Nowadays, there is no religious or denominational bar to the holding of public office, except that the Lord Chancellor may not be a Roman Catholic.

In the services administered by the State, such as the armed forces, the national hospitals and the prisons, the clergy of the established Church of England or the Church of Scotland provide the principal ministrations and are paid a salary by the State for this part of their work. Priests of the Roman Catholic Church and ministers of other denominations may also be appointed or specially called in as required. Voluntary schools (see p. 162) provided by churches of any religious denomination may be wholly or partly maintained from public funds.

There is no precisely accurate or uniform method of assessing the number of adherents to the various churches in the United Kingdom, since no inquiries are made about religious beliefs in population censuses or other official returns, and each church adopts different criteria in counting its members. The membership figures given in the following sections should therefore be taken as approximate.

Church of England

The Church of England is the Established Church, and claims to be the ancient catholic church of the land. At the Reformation in the sixteenth century, it repudiated the supremacy of the Pope, but retained the historic episcopate, and the creeds and sacraments upon which its doctrines are based; therefore it claims to be both 'catholic' and 'reformed'. Its form of worship is embodied in the Book of Common Prayer, which was first compiled in 1549.

The Church is uniquely related to the Crown in that the Sovereign, who must be a member of the Church of England, is called 'Defender of the Faith' (a statutory title as protector of the Church) and promises on his or her accession to uphold it. The coronation of the Sovereign is performed by the Archbishop of Canterbury; prayers for the Sovereign and other members of the royal family are said in all the statutory services of the Church; Church of England archbishops, bishops and other senior ecclesiastical dignitaries, as well as incumbents of Crown livings, are appointed by the Sovereign on the advice of the Prime Minister¹; and all clergymen take the oath of allegiance to the Crown.

The Church is also linked with the State through the House of Lords, in which the two archbishops of Canterbury and York and the twenty-four senior diocesan bishops have seats. This makes it possible for the views of the Church leaders to be expressed freely on any moral issue raised in connection with the corporate conduct of the State as well as on specifically ecclesiastical issues—a matter of particular significance in view of the fact that the clergy of the Church of England (together with those of the Church of Scotland, the Church of Ireland and the Roman Catholic Church) are legally disqualified from sitting in the House of Commons.

The Church is not free to change its form of worship, as laid down in the Book of Common Prayer, without the consent of Parliament; canons (Church rules) cannot be made or amended without the consent of the Queen; and the measures of the Church Assembly (as distinct from its regulations) are not valid without parliamentary assent.

Church Organisation and Government

The Church of England is organised by geographical areas into two provinces and 43 dioceses. The Province of Canterbury contains 29 dioceses and that of York 14. Each diocese is subdivided into ecclesiastical parishes, of which there are about 14,500 in all. The Archbishop of Canterbury is Primate of All England and bishop of his own diocese of Canterbury; the Archbishop of York is styled Primate of England and is bishop of his own diocese of York. The baptised membership of the Church is about 27 million, i.e. two-thirds of the population born and resident in the two provinces.

Spiritual authority in the Church rests with the bishops. The authoritative bodies in matters of doctrine, belief and practice are the Convocations of Canterbury and York, each presided over by its archbishop, and consisting of an upper house of bishops, and a lower house of representatives of each cathedral chapter, archdeacons and elected clergy. The Convocations meet not oftener than three times a year.

The legislative and central administrative body of the Church is the National Assembly of the Church of England, which is commonly called the Church Assembly. It was set up in 1919 at the request of the two Convocations, and was given power to legislate by measure by the Church of England Assembly (Powers) Act of 1919. It can discuss any matter connected with the Church of England, but may not make any doctrinal statements, nor infringe upon the rights of the Convocations. It consists of three houses: bishops, clergy and laity. The first two houses are composed of the members of the Convocations; the house of laity consists of men and women elected every five years by the lay members of diocesan conferences, and the constitution allows for ten co-opted members.

The Church Assembly usually meets three times a year. Measures, after passing through various stages in the assembly, are presented to an ecclesiastical committee of both Houses of Parliament, consisting of 30 members, of whom 15 are appointed

¹ The Archbishops of Canterbury and York have appointed a commission to consider the method of Crown appointments to ecclesiastical offices.

by the Lord Chancellor and 15 by the Speaker of the House of Commons. This committee lays the measures, together with a report upon them, before both Houses. If both Houses so resolve, the measure is sent to the Sovereign for Royal Assent, after which it has the same force and effect as an Act of Parliament. Parliament, though it may reject a measure, has no power to amend it.

The Church Assembly is the centre of an administrative system consisting of boards and councils dealing with various aspects of the Church's work, such as education, training for the ministry, and Church work at home and overseas. The Church Assembly, through the Schools Council of its Board of Education, is responsible for some 8,000 Church of England schools of all types, for approximately half of which the Church bears a quarter of the cost of improvements, alterations and repairs.

Parochial church councils were set up in 1921 to associate the laity with the government of the Church in the parish. The members of these councils are appointed by the parochial electors, i.e. persons who are baptised, are not members of any other church, are 17 years of age and over, and have applied for membership of the electoral roll of the parish where they habitually reside or worship. The estimated number on the parish electoral rolls is just under three million.

The Church of England has its own ecclesiastical courts. Their jurisdiction today consists largely of faculty cases, with very occasional cases of discipline against clergy, either for moral or ecclesiastical offences. A faculty is necessary for any specific alteration or addition to the fabric or ornaments of a church or to a churchyard.

There are 24 Church of England training colleges for teachers and 26 theological colleges. All these establishments are run by independent bodies of trustees. The Church Assembly has approved a programme of expansion of the Church training colleges which should increase the number of students from under 5,000 to 9,000, and will include the building of two new colleges. The Church Assembly has also accepted responsibility for considerable expenditure on the theological colleges and their expansion.

Church Finance

Each parish is responsible for its own finances, and also contributes an annual apportioned quota to diocesan funds, and each diocese similarly contributes to the Church Assembly. In the diocese, the financial authority is the diocesan board of finance, which administers the money contributed by the parishes, and acts as trustee on behalf of the parochial church councils, which have only limited powers of holding property. The Central Board of Finance administers the Church Assembly Fund, supported by diocesan contributions, and devoted to the maintenance of central services, including capital expenditure on training colleges and theological colleges and the grants for training candidates for ordination.

The State makes no payment direct to the Church as such, though it pays for the services of chaplains in the armed forces and in prisons, and contributes substantially to the maintenance of Church schools and training colleges.

The income from all sources of 14,305 parochial church councils in 1960 was about £19½ million; of this about 7.5 per cent went to diocesan funds, and of that 7.5 per cent about one-third went to central needs.

The endowment income of the Church is mainly administered by the Church Commissioners, the body largely responsible for the payment of clergy stipends and the provision of finance for pensions, new churches, parsonage houses and church schools. The Commissioners' income from investments has doubled during the past fourteen years; in broad terms, this means that the stipends of the poorer clergy have

roughly kept in step with the rise in the cost of living, and that the Commissioners have been able to embark on assistance for providing better parsonage houses, for church buildings in new areas of population, and for better pensions for clergy and their widows.

The Anglican Communion

The Anglican Communion comprises 17 autonomous churches in the United Kingdom and overseas, with a total membership of over 40 million.

In the United Kingdom, in addition to the established Church of England, there are unestablished Anglican Churches in Ireland, Scotland and Wales: the Church of Ireland (disestablished in 1869) has 14 dioceses in Northern Ireland and the Irish Republic, and some 411,000 members; the Episcopal Church in Scotland, 7 dioceses, 377 churches and some 108,000 members; and the Church in Wales (disestablished in 1920), 6 dioceses and some 200,000 Easter communicants.

Outside the United Kingdom, the Anglican Communion exists wherever its members have gone as settlers, traders and missionaries. The Protestant Episcopal Church in the United States of America (with its missionary dioceses in Latin America and the Philippines), the Church of India, Pakistan, Burma and Ceylon, and the Anglican Churches of South Africa, Canada, Australia, New Zealand, the West Indies, China, Japan, West Africa and Central Africa are all autonomous members of the Anglican Communion. In the Middle East, Jerusalem now has the status of an archbishopric with jurisdiction over five dioceses in the region. A new province of East Africa includes five dioceses in Kenya and Tanganyika. In Uganda, Rwanda and Burundi a province has been formed which comprises eight dioceses. In South East Asia the Anglican dioceses have formed a regional council which already has a measure of autonomy. In addition, there remain a number of overseas dioceses under the jurisdiction of the Archbishop of Canterbury. There is limited intercommunion with the Church of South India, and between that Church and the Church of India, Pakistan, Burma and Ceylon.

Since 1867 the Lambeth Conference has met every tenth year (except for the war years) for unofficial consultation between all Anglican bishops; it is presided over by the Archbishop of Canterbury. The last meeting, held in London in 1958, was attended by 310 bishops from all parts of the Anglican Communion. The conference has no executive authority, but enjoys great moral prestige, and its findings on doctrine, discipline, relations with other communions, and on the attitude of the Anglican churches to political and social questions are widely studied.

An executive officer of the Anglican Communion is the secretary of the Anglican Advisory Council on Missionary Strategy, and exercises general supervision on behalf of the consultative body of the Lambeth Conference over all matters affecting the welfare of the Anglican Communion which call for attention between the meetings of the conference.

The Church of Scotland

The established church in Scotland is the Church of Scotland, which in government is presbyterian. It has been described as 'the supreme example of a church which is established and yet is free'. Its position, defined in the Treaty of Union, 1707, was further safeguarded by the Church of Scotland Act, 1921.

Whereas in episcopacy church government is a hierarchy of persons, in presbyterianism there is a hierarchy of courts. All ministers are of equal status, and each of the 2,242 churches is governed locally by the Kirk Session, consisting of the minister

and elected elders (of whom there are over 45,400 in all); above this is the Court of the Presbytery, then the Court of the Synod, and finally the General Assembly, which meets annually and consists of elected ministers and elders presided over by an elected Moderator who serves for one year. The Sovereign is represented at the General Assembly by the Lord High Commissioner. The Church of Scotland has fought with the utmost vigour throughout the years for complete freedom in all spiritual matters and for the right to appoint its own officers and to decide all matters of doctrine and discipline. This freedom is recognised by Parliament, and the decisions of the Church of Scotland are not subject to parliamentary debate or modification.

The thorough training for the ministry, which lasts at least six years, has given the church a high reputation for scholarship and has in turn influenced the standard of education in Scotland. The membership of the Church of Scotland is estimated at about 1,307,000.

The Free Churches

The phrase 'Free Churches' is now commonly used to describe those churches in England which were more generally known in the past as 'nonconformist' churches; and protestant churches in Scotland (except the established Church of Scotland), Wales and Northern Ireland. The main Free Churches are the Methodist, Baptist and Congregational Churches, and the unestablished presbyterian churches throughout Britain. In addition, there are a number of other protestant denominations in the United Kingdom as well as such religious associations as the Society of Friends and the Salvation Army, which have certain links with the main Free Churches.

The word 'nonconformist' signifies dissent from certain of the formularies and practices of the established church. The Methodist Church, for example, originated in the evangelical revival led by John Wesley within the Church of England during the eighteenth century. In general, the Free Churches base their reason for existence on their distinctive convictions regarding organisation and worship.

The Methodist Churches

The largest of the Free Churches is the Methodist Church, formed in 1932 by the union of the majority of separate Methodist Churches. It has some 723,500 adult full members. The supreme authority is the annual conference and the system of government is in many ways presbyterian, the leaders' meeting corresponding to the kirk sessions, with circuit meetings and district synods resembling presbytery and synod. One of the characteristics of Methodism is its strong emphasis on lay leadership. There are some 22,100 trained lay preachers sharing the work of 4,500 ministers and preaching in many local churches.

Methodist Churches which did not join the union in 1932 include: the Independent Methodists, in which ministerial service is on a purely voluntary basis and women (many of whom are ministers) have full equality with men; and the Wesleyan Reform Union (with some 5,900 members) which, while retaining the essential Methodist doctrine, gives autonomy to each of its 160 individual churches.

The Congregational and Baptist Churches

The Congregationalists are the oldest community of dissenters in Britain. In 1831 most of their churches were formed into the Congregational Union. Local churches have formed county and national unions, whose secretariat and assemblies have much influence, but no compulsive authority over them, since great importance is attached to the autonomy of local church meetings. Adult membership is approximately 206,800.

Like the Congregationalists, the Baptists are for the most part grouped in associations of churches and the majority of these belong to the Baptist Union formed in 1813. Baptists differ from Congregationalists in that they practise the baptism of believers only; they do not baptise infants. The Baptist churches have about 314,000 members.

The Unestablished Presbyterian Churches

The Presbyterian Church in Ireland has a communicant membership of about 138,000; certain amalgamations of presbyteries in 1962 reduced their numbers from 29 to 21 (some of them being in the Irish Republic). The Presbyterian (or Calvinistic Methodist) Church of Wales, which arose from the revivalist movement led by Howell Harris in 1735, now includes a considerable proportion of the Welsh-speaking population; its members number some 134,000. The Presbyterian Church of England is organised in 14 presbyteries and has nearly 71,100 members; its highest court is its general assembly; women are admitted to the eldership and ministry.

Other presbyterian churches in Britain include: the Free Church of Scotland; the United Free Church of Scotland; the Free Presbyterian Church of Scotland; the Reformed Presbyterian Church of Scotland; the Reformed Presbyterian Church of Ireland (which consists of 43 congregations and preaching stations, all but five of which are in Northern Ireland); and the Non-Subscribing Presbyterian Church of Ireland, comprising three presbyteries (two of which are in Northern Ireland), with 34 congregations.

Other Denominations

Among other Protestant denominations in the United Kingdom are: the Unitarian and Free Christian Churches, which number about 300, with a membership of some 20,000; the Churches of Christ (known also in the United States of America as Disciples of Christ) which have been an organised community in Britain since early in the nineteenth century, and now have 165 churches in the United Kingdom, and a membership of about 7,500; the British Province of the Moravian Church, which is an international missionary church, with 40 congregations and preaching stations in the United Kingdom and some 3,300 communicant members; the Free Church of England (or Reformed Episcopal Church), which was formed in 1844 as a direct result of the Oxford Movement, and now has 50 churches; the Society of Friends; and the Salvation Army.

The Society of Friends, or Quakers, came into being in the middle of the seventeenth century under the leadership of George Fox. A distinctive feature is the way of worship: outward sacraments are not observed and there is no separate ministry. Friends place great emphasis on work for peace, and their influence in many parts of the world, especially in social reform and in the relief of suffering, is very wide in relation to their numbers. There are 441 Quaker Meetings in Britain and about 21,700 members; and the Society has nine schools (the pupils and staff of which are not exclusively Quaker).

The Salvation Army, founded in 1878 by a Methodist, William Booth, is a religious movement, composed of men and women who seek the spiritual and social betterment of their fellows, primarily by preaching the gospel to those hitherto untouched by religious effort. The movement, in which military rather than ecclesiastical terminology is used, has branches all over the world, and its social work (particularly that connected with the welfare of members of the British armed forces serving overseas) is well supported.

The Christian Scientists, who are in no way connected with any other church, have about 340 branch churches and societies in Britain.

The Roman Catholic Church

The Roman Catholic hierarchy in England and Wales, which became temporarily extinct during the sixteenth century, was restored in 1850; the Scottish hierarchy became extinct in the early seventeenth century and was restored in 1878, while the Irish hierarchy never became completely extinct. The normal government of the Roman Catholic Church, namely by territorial archbishops and bishops, is once again the rule in the whole of the United Kingdom.

The central territorial unit of the Roman Catholic hierarchical organisation is the province or archdiocese under the metropolitan, who is always an archbishop. The chairman of the bench of bishops in England and Wales is the Archbishop of Westminster. A province normally comprises several dioceses, each under a bishop aided by a chapter of canons and others, and by priests in charge of the parishes into which the diocese is subdivided. In England and Wales there are four provinces and archdioceses (Westminster, Liverpool, Birmingham and Cardiff), 14 dioceses, and nearly 2,300 parishes; in Scotland there are two provinces and archdioceses (St. Andrews and Edinburgh, and Glasgow), six dioceses, and about 400 parishes; in Northern Ireland there are six dioceses (several of which have territory partly in the Irish Republic and partly in Northern Ireland since there is one hierarchy for the whole of Ireland) and about 170 parishes. In the whole of the United Kingdom there are some five million adherents (including children) to the Roman Catholic faith.

The Roman Catholic Church attaches great importance to the education of Roman Catholic children in their own faith, and requires that the children of marriages between Roman Catholics and members of any other Church should be brought up as Roman Catholics. Many schools for Roman Catholic children in the United Kingdom are staffed by members of the Religious Orders for men and women, who also undertake other social work such as nursing, child care, and the conduct of homes for the aged.

Jewry

Jews first settled in England at the time of the Norman conquest, but were expelled at the end of the thirteenth century by an edict of Edward I. The present Anglo-Jewish community dates from 1656, the earliest arrivals being the Sephardi (from Spain and Portugal). At the end of the seventeenth century an Ashkenazi community (from Germany and East Europe) was established, which increased rapidly and spread to the principal provincial cities. As a result of the virtual destruction of whole Jewish communities on the Continent during the second world war, the present Anglo-Jewish community of some 450,000 is the largest group of Jews in Europe.

The Anglo-Jewish community is divided into two schools of thought, each of which has its own form of worship and its own services: the Orthodox (the original groups) and the Reform. The Reform Movement, which attaches less religious importance to some of the ancient rituals and practices of the Jewish faith, began in 1840. It was followed in 1901 by the establishment of the Liberal Jewish Movement which, in addition, lays emphasis on the reinterpretation of traditional Judaism in the light of modern thought and custom. Of the Jews in Great Britain who belong to any kind of synagogue, about 80 per cent are Orthodox. The Chief Rabbi is the head of the largest group (Ashkenazi) within Orthodox Jewry; the Haham is the head of the Sephardi group.

Synagogues in Britain number approximately 450. There has been an increase in the number of Jewish denominational schools, which are now attended by about one in seven Jewish children, while the remainder attend the ordinary State or independent schools and receive extra-curricular instruction in the Jewish faith.

Other Religious Communities

Many immigrants to Britain from overseas Commonwealth countries and foreign countries have established centres for worship for their own communities in the United Kingdom, and especially in London. The Christian communities include the Greek, Russian, Polish and Serb Orthodox, with some Estonian and Latvian Orthodox, and also the Armenian Church. There are also churches belonging to the Lutheran Churches of Denmark, Finland, Germany, Norway and Sweden, and centres where Estonian, Latvian and Polish Lutherans worship according to their creed. In addition, the French, Dutch, Swiss, Hungarian and Polish Reformed Churches are represented in Britain, the first three having their own places of worship.

The principal non-Christian communities in Britain, apart from the Jews, are the Moslems and the Buddhists. The Moslems are the more widely represented; it is estimated that the Islamic population of Britain may now number about 200,000, of whom some 2,000 are in the Muslim Society of Great Britain. Their principal mosque is the Shah Jehan Mosque at Woking, and there are also mosques in London, Birmingham, Manchester, Cardiff and Glasgow.

The Buddhist temple is in South Kensington, London. There is also a meeting place and discussion centre for the several thousand adherents of Buddhism in Britain.

Co-operation between the Churches

An outstanding feature of recent years has been the growth of co-operation between the Churches. The British Council of Churches, founded in 1942, includes official representatives from almost all the churches of the British Isles, with the exception of the Roman Catholic Church. The Council facilitates common action between the churches and seeks to further the cause of Christian unity. The Archbishop of Canterbury is president. In addition, most, though not all, of the Free Churches in England and Wales are members of the Free Church Federal Council (formed in 1940 by the amalgamation of the Federal Council of Evangelical Free Churches with the National Free Church Council), the aims of which are to promote unity and joint action between the Free Churches, and to provide a channel through which the Free Churches can communicate and negotiate with central and local government authorities as a united body. Discussions on changes in organisation to allow of closer relations between the Church of England, the Church of Scotland, the Episcopal Church in Scotland, and the Presbyterian Church of England have been taking place for the last few years. Conversations on the same subject are also being held between representatives of the Church of England and the Methodist Church.

The Archbishop of Canterbury is advised on these matters, both at home and abroad, by the Church of England Council on Inter-Church Relations.

The Anglican, Presbyterian and Free Churches in the British Isles also participate in the World Council of Churches, which was constituted at Amsterdam, Netherlands, in 1948; its third assembly was held in the autumn of 1961 in New Delhi, India. The council links together 171 churches in over 50 countries for co-operation in action and the study of common problems.

Co-operation of other Churches with the Roman Catholic Church takes place on some specific issues through the Churches' Main Committee. The Council of Christians and Jews works for better understanding between members of the two religions and deals with problems arising in the social field.

PROMOTION OF THE SCIENCES AND THE ARTS

THE PROMOTION OF THE SCIENCES

The promotion of the sciences in the United Kingdom is largely the concern of learned societies and institutions but only a small part of the national research programme is carried out directly by them. Most pure research is conducted in the universities, which also play an essential part in maintaining a steady supply of trained scientists. In practice, it has become impossible to distinguish clearly between pure science and its extensive applications in everyday life, with the result that scientific research has become the concern also of industry and of various Government departments, a number of which maintain their own research establishments.

Today it is an acknowledged responsibility of the Government not only to undertake research directly but also to keep under review facilities for the training of scientists, to encourage fundamental research, to finance certain research projects, and to ensure that adequate research is directed to matters of national interest. As a result, a system of collaboration which leaves the greatest possible measure of freedom to individual scientists has developed between the universities, industry and the Government. The learned societies, membership of which is derived from all three, play an important part in the discussion and publication of the results of research. Important work is also undertaken by independent organisations.

THE LEARNED SOCIETIES

The learned societies have had a profound and lasting influence upon the development and organisation of science in Britain; not only have they provided the background for continuity of research from the seventeenth century onwards, but they have been a meeting ground where scientists can foregather for the exchange of ideas, and a reliable source from which new ideas for the enrichment of knowledge can flow. Although today most research operations are conducted under other auspices, the learned societies have retained their traditional function of facilitating the spread of scientific knowledge and the application of new discoveries.

At present there are over 200 learned scientific societies in Britain with approximately 400 scientific publications. There are also numerous technical institutions and professional associations, many of which are playing a distinguished part in promoting their own branches of science or are interested in the education and professional well-being of their members. Prominent examples of these are the British Medical Association, the Institution of Civil Engineers, the Institution of Mechanical Engineers, the Institution of Electrical Engineers, the Institution of Chemical Engineers, the Institution of Metallurgists, the Royal Institute of Chemistry, the Institute of Physics and the Physical Society, the Institute of Biology, the National

Institute of Industrial Psychology and the National Institute of Economic and Social Research.

The most eminent of the learned societies concerned with science in its broadest aspects (as distinct from those societies with specialised interests and activities) are noted below.

The Royal Society (or, more fully, the Royal Society of London for the Improvement of Natural Knowledge), founded in 1660, occupies a unique place in the country's scientific affairs and admission to it is regarded by scientists as a high honour. The Queen is Patron. There are today three main categories of Fellowship: Royal Fellows, comprising the Queen Mother and three Royal Dukes; Foreign Members, of whom there are now 65; and the main body of Fellows, numbering some 625. Election to the Fellowship, which is for life, is restricted to 25 people a year and to foreign membership to four a year. The Society is governed by a council of 21 members.

Its present activities include the holding of scientific meetings; publication of research work, mainly in the *Philosophical Transactions* and the *Proceedings*; the presentation of medals; the giving of endowed lectures; and the award of research appointments and grants. The highest medal presented is the Copley Medal, for which scientists from all countries are eligible; there are also two Royal Medals, and the Rumford, Darwin, Buchanan, Sylvester and Hughes Medals. There are five lectureships: the Croonian (biology); the Bakerian (physical sciences); the Ferrier (nervous system); the Wilkins (history of science); and the Leeuwenhoek (microbiology). Events to mark the tercentenary of the Society in 1960 included the foundation of the Wolfson Research Professorship of the Royal Society and the Leverhulme Tercentenary Medal for the most important contribution to pure or applied chemistry or engineering. In 1962 the Henry Dale Research Professorship was instituted by an endowment from the Wellcome Trustees.

Although an independent private corporation, the Society has always had a special relationship with the Government, which provides its accommodation and makes grants for research activities administered by it. The President of the Society is consulted on appointments to Government research councils and its Fellows serve on most governmental advisory councils and committees concerned with research.

The Society represents the United Kingdom in the international unions comprising the International Council of Scientific Unions (ICSU) and appoints national committees for each of them.

The Royal Society of Arts (properly, the Royal Society for the Encouragement of Arts, Manufactures and Commerce) has a character at once scientific, artistic, technical, industrial and commercial. Since its foundation in 1754, however, one of the Society's principal objects has been to promote the progress and application to useful ends of all departments of science. Today it fulfils this purpose chiefly by disseminating new scientific knowledge. The Society regularly holds meetings for the delivery of lectures, and publishes a monthly *Journal*, thus providing effective media for the exposition and assessment by leading authorities of developments which have a public as well as a specialist interest.

The Royal Institution was founded in 1799 as a public body for facilitating the introduction of useful mechanical inventions and improvements, and for teaching the application of science to everyday life. Later it undertook the 'promotion of chemical science by experiments and lectures for improving arts and manufactures', and 'the diffusion and extension of useful knowledge'. Its character, however, was largely determined by the work of Sir Humphry Davy and Michael Faraday, who

established a tradition of research. Today, the Royal Institution has extensive research laboratories, and lectures are given on recent developments in science and other branches of knowledge. Its library of some 60,000 books includes many early scientific works and manuscripts.

The British Association for the Advancement of Science was founded in 1831 to promote general interest in science and its applications. One of its chief activities is the Annual Meeting, attended by many young students as well as by eminent scientists. Its 14 sections cover the whole range of pure and applied science other than medical science, and there is a division for studying the social and international relations of science. In addition to the annual meeting and in order to extend its influence, the association plans continuous activities throughout the year, in particular special lectures, exhibitions and discussions (some designed for young audiences), the publication of pamphlets, the organisation of conferences, the appointment of study groups and liaison with the press and with sound and television broadcasting services. The association has set up area committees and three lectureships for young scientists—the Kelvin, the Darwin and the Lister lectureships, dealing respectively with the physical, biological and sociological sciences—to encourage scientists to make their activities known to wider audiences. Collaboration with other scientific organisations has always been an important function of the British Association, and it has an organised relationship with over 150 scientific bodies and learned societies. It has also played an important part in the development of science by taking or recommending action to remove obstacles to the discovery and application of scientific knowledge.

UNIVERSITIES AND COLLEGES OF TECHNOLOGY

According to a survey carried out by the Ministry of Labour, the number of qualified scientists and engineers (i.e. holders of degrees or diplomas, or members of certain professional institutions) in employment in Great Britain at the beginning of 1959 was 173,000 (72,200 scientists and 100,800 engineers) representing an increase of 28,000 or nearly one-fifth over the numbers recorded in a similar survey in 1956. On the basis of the 1956 survey the Committee on Scientific Manpower of the Advisory Council on Scientific Policy estimated that the number of scientists and engineers qualifying annually would need to be raised from 10,000 in 1956 to 20,000 between 1966 and 1971. The Government accepted this figure as a reasonable goal and supported measures to ensure that the universities and technical colleges together would be able to produce at least this number. In 1961 the Committee reported that this target was likely to be reached by 1965 and an output of 30,000 by 1972 was possible. The prospect of an adequate supply was welcome as it would enable those trained in scientific disciplines to be available for management, administration and the professions generally.

The Universities

During recent years there has been a considerable expansion of scientific and technological training and research facilities within the universities. For example, the Imperial College of Science and Technology, London, the Royal College of Science and Technology, Glasgow, and the Manchester College of Science and Technology provide degree and postgraduate courses for the universities with which they are associated. At the new Churchill College, Cambridge, 70 per cent of places are allocated to students of scientific and technological subjects. More than half of all students at universities are now studying some branch of science or technology.

Eighteen universities in the United Kingdom have faculties of engineering, some of them including chemical, aeronautical and production engineering. Universities in industrial centres have long been renowned for studies relating to their local industries, such as metallurgy at Birmingham, Sheffield, Swansea and other centres of the metals and metal-using industries, and naval architecture and marine engineering at Glasgow, Liverpool and Newcastle upon Tyne. In the textile areas, Manchester offers courses in textile chemistry and engineering and Leeds has specialised in courses and research in connection with the wool textile industry, including colour chemistry and dyeing. Leeds is the only university in Britain that has a department devoted to the study of leather manufacture, and Manchester offers courses in paper and machine tool technology. Sheffield is unique for its department of glass technology—the pioneer among such departments in the world. Aeronautical engineering is a main subject for first degree courses at Bristol, Cambridge, London, Manchester, Southampton, Glasgow and Belfast. Birmingham and London offer first degree courses in oil technology.

All universities and university colleges in the United Kingdom have laboratories or research departments.¹ The Government research councils award a substantial number of studentships for postgraduate training in science and technology, as well as post-doctoral research fellowships. Leading firms in such industries as chemicals, oil, motor vehicles, textiles, electrical equipment, food, and mining provide grants for specific research projects or endow research fellowships, such as the Imperial Chemical Industries and Leverhulme Fellowships, or professorships. Foundations which provide similar benefactions include the Nuffield Foundation, the Ford Foundation, the Carnegie Trust, the Wellcome Trust and Courtauld's Scientific and Educational Trust Fund. Among individuals whose major contributions to universities have included provision for research facilities are Lord Nuffield, with gifts to the Clarendon Laboratory, Oxford, Lord Austin, who provided new buildings for the Cavendish Laboratory, Cambridge, members of the Wills family, who financed the Physics Laboratory at Bristol, members of the Boot family at Nottingham and of the Brotherton family at Leeds.

There are several examples of continuous co-operation between industry and commerce and the universities. A notable one is the Manchester Joint Research Council, set up in 1944 by the Manchester Chamber of Commerce and the University of Manchester, which have equal representation on it; this body organises lectures and discussion meetings and conducts investigations into the use made of research by industry. Another is the Glass Delegation of the University of Sheffield, which directs the work of the Department of Glass Technology and is composed of members appointed by the Council of the University and representatives of firms and companies who subscribe funds for the furtherance of training and research. An example of co-operation between a Government department, an independent organisation and a university is the radio telescope at the Nuffield Radio Astronomy Observatory, Jodrell Bank, Cheshire (see p. 217), financed jointly by the Department of Scientific and Industrial Research, the Nuffield Foundation, and Manchester University, which has been responsible for its development.

Technical Colleges

The Government's plans for a large-scale and rapid expansion of education in advanced technology include the increase of advanced work at Colleges of Advanced

¹ The many topics under investigation in these laboratories and in those of the major technical colleges, are listed in *Scientific Research in British Universities and Colleges* (see Bibliography, p. 538).

Technology (in England and Wales), Central Institutions (in Scotland) and technical colleges, as well as at the universities (see pp. 171-4).

Most postgraduate studentships and fellowships awarded by the Government research councils may be held at colleges of advanced technology and technical colleges as well as at universities.

INDUSTRIAL RESEARCH

The most recent governmental survey of the pattern of the research and development effort in Great Britain was published in the report of the Advisory Council on Scientific Policy for 1959-60. It indicated that in the year 1958-59 Britain spent a total of some £480 million on all kinds of research and development, of which £266 million was spent in private industrial laboratories, industry itself providing £136 million and the Government most of the remainder. Public corporations were estimated to have spent £7.8 million.

In the fourth of its estimates of research in manufacturing industry, published in December 1961, the Federation of British Industries (FBI) found that its members (accounting for 90-95 per cent of such expenditure) spent £250 million on research and development in 1959-60. An earlier (1958) inquiry by DSIR indicated that the largest expenditure was by the following industries: aircraft (44 per cent), electrical engineering (18 per cent), chemicals (13 per cent) and shipbuilding (8 per cent). This survey also showed that, according to the most reliable estimates available, about 46,600 professionally qualified scientists and engineers were then engaged on research and development in industry, including about 2,200 research workers in agriculture and medicine.

The major part of industrial research in Britain is undertaken in the research organisations of the larger firms. The other main agencies are independent institutes for sponsored research, consultant laboratories, Government laboratories and universities and technical colleges. The main nationalised industries have their own research establishments (particulars of which are given in the appropriate sections of Chapter 10, Industry), and also give financial support to organisations concerned with research into matters of interest to them.

Research Associations

A scheme by which the Government helps groups of firms with similar interests to form industrial research associations was started in 1915 with the decision to create the Department of Scientific and Industrial Research. In 1961-62, there were 53 such research associations with a combined income of £8.7 million (compared with £5.1 million in 1955), of which a little less than a quarter was contributed by the Government through the Industrial Grants Committee of the Department of Scientific and Industrial Research. The associations, which serve about 60 per cent of British industry, vary in size from the British Iron and Steel Research Association (BISRA) with an annual income of over £1 million, of which £120,000 is provided by DSIR grant, to the File Research Council with an income of only £8,100. The largest are those dealing with the metals and electrical engineering industries, coal utilisation, cotton and man-made fibres, production engineering, marine engineering and shipbuilding. (Particulars of these and other associations are given in the relevant sections of Chapter 10, Industry.) The amounts of the Government grants are related to the contributions made by the industries concerned.

The research associations are autonomous bodies governed by their own councils, the members of which are mostly representatives of industry. The councils are advised

by research committees in preparing research programmes. The research associations make the results of their work known to member firms by a variety of methods, among which are bulletins, publications, lectures, films, training classes, exhibitions and mobile demonstration units.

Institutes for Sponsored Research

A number of institutes exist to carry out sponsored research for industry on a confidential basis, the results and patents arising being retained as the property of the sponsor. The principal institutes of this type are the *Fulmer Research Institute*, Stoke Poges, Buckinghamshire, the *Sondes Place Research Institute*, Dorking, Surrey, the *Battelle Institute*, London, and the *Arthur D. Little Research Institute*, Musselburgh, near Edinburgh.

ORGANISATION OF GOVERNMENT RESEARCH

The active participation by the Government in scientific research is for the most part a development of the twentieth century, though its association with science dates back to a much earlier period.

Evolution of the Research Organisations

In 1675, King Charles II established Britain's first State-supported research institution—the Royal Greenwich Observatory (now transferred to Herstmonceux, Sussex)—to correct the tables of the positions of the moon and fixed stars 'for the use of his seamen'. The Geological Survey of Great Britain, the first national institution of its kind in the world, was founded in 1835. In 1842 the Board of Inland Revenue established a chemical laboratory which eventually developed into the Laboratory of the Government Chemist; and in 1854 the Meteorological Office was established by the Board of Trade. All these Government departments were using scientific knowledge, but there was little organised effort towards the application of the discoveries made in pure science.

The need for research in physics and engineering, and particularly into methods of precise measurement, led to the establishment in 1900 of the National Physical Laboratory under the control of the Royal Society, with a small grant from the Treasury towards equipment and a yearly grant towards upkeep. Government recognition of the importance of scientific research and its applications was hastened by the first world war, and the Department of Scientific and Industrial Research (DSIR) was established in 1916 as a separate Government department. In 1918 the DSIR took over financial responsibility for the National Physical Laboratory from the Royal Society, but the Society appoints a general board and an executive committee which supervise scientific policy.

A Medical Research Committee was appointed in 1913 to administer the research funds provided under the National Health Insurance Act of 1911. In 1920 the committee was superseded by the Medical Research Council (MRC), established under Royal Charter and supported by a grant-in-aid provided by Parliament.

Agricultural research, in its early days, was not centrally organised. The first research institutes were founded and initially maintained by private individuals. Rothamsted Experimental Station, for example, the oldest of them, was founded in 1843 by Sir John Lawes, who personally financed it until, in 1889, he endowed it and set up the Lawes Agricultural Trust to administer the endowment; as research

became more costly, Government funds were sought and obtained, though the institute remained independent. The Development Commission, set up under the Development and Road Improvement Funds Act, 1909, recommended that financial aid should be made available from the Development Fund to 'aid and develop agriculture and rural industries by promoting scientific research' and in 1911 this fund was used to promote a scheme which led to the establishment of many of the present-day agricultural institutions. In 1931 the Agricultural Research Council (ARC) was established by Royal Charter to be responsible for the general organisation and development of agricultural research in Great Britain. In addition to advising the agricultural departments on the programmes of the institutes and, in the early stages, acting as scientific adviser to the Development Commission, the ARC was given funds to spend at its own discretion and it gradually took over the Commission's responsibilities for agricultural research. The Nature Conservancy, which is concerned with the conservation of flora and fauna, was set up in 1949.

During the second world war, a Scientific Advisory Committee to the War Cabinet was created to co-ordinate defence research and civil research. This committee was replaced in 1947 by two bodies: an Advisory Council on Scientific Policy to advise the Lord President of the Council, who had come to be regarded as responsible for the formulation and execution of Government scientific policy; and a Defence Research Policy Committee 'to advise the Minister of Defence and Chiefs of Staff on matters connected with the formulation of scientific policy in the defence field'.

Ministerial Responsibility for Civil Scientific Research

Ministerial responsibilities for Government scientific organisations were rearranged following the governmental changes in October 1959. A Minister for Science was appointed in conjunction with one of the ancient Offices of State traditionally within the Cabinet (at first that of Lord Privy Seal, but from July 1960 that of Lord President of the Council) who is responsible to Parliament for the Council for Scientific and Industrial Research, the Medical Research Council, the Agricultural Research Council, the Overseas Research Council and the Nature Conservancy. He also exercises ministerial functions under the Atomic Energy Acts, and general supervision over the programme of space research.

Other ministers remain responsible for the scientific establishments within their own departments; but the Minister for Science, advised by the Advisory Council on Scientific Policy, is broadly responsible for civil scientific policy. He is assisted by an administrative staff, known as the Office of the Minister for Science, which is composed of a general division and an atomic energy division.

A Committee on Management and Control of Research and Development, set up in 1958 by the Lord President of the Council, formulated in its report in 1961 standards of good practice which have been accepted by the Government as widely applicable to its research and development organisations.

The Advisory Council on Scientific Policy

The members of the Advisory Council on Scientific Policy, who are appointed by the Minister for Science, include eminent scientists drawn from the universities, industry and Government service.

In order to give adequate attention to each of the subjects within its wide range of interest, the Advisory Council has established standing committees on Scientific Manpower; Scientific Library and Technical Information; Overseas Scientific Relations; and Statistics.

Department of Scientific and Industrial Research

The DSIR is responsible to the Committee of the Privy Council for Scientific and Industrial Research. It is governed by a Council for Scientific and Industrial Research, known as the Research Council.

The Research Council consists of as many members as may be determined by the Minister for Science; in 1961 it had a chairman and 14 members. It is entrusted with the organisation, development and encouragement of scientific and industrial research and with the dissemination of the results of such research. In particular, it may:

- (1) encourage and support scientific research in universities, technical colleges and other institutions;
- (2) establish or develop institutions or departments of institutions for investigation and research relating to the advancement of trade and industry; and
- (3) take steps to further the practical application of the results of scientific and industrial research.

These functions are discharged through 14 national research organisations under the Research Council's own control and direction and financed from its own Vote, and one, the Joint Fire Research Organisation, which is maintained by the DSIR and the Fire Offices' Committee; and through the autonomous industrial research associations. The Council also makes grants for these purposes and for postgraduate instruction in science and technology to individual workers and to institutions.

Since DSIR was set up, technological changes have necessitated a measure of reorganisation. Science-based industries, such as the chemical and electrical industries, have matured and prospered; entirely new industries, such as electronics, plastics, synthetic fibres and synthetic rubber industries, have emerged. Industry, for its own purposes and on behalf of the Government, has become the largest employer of research workers. Organised teamwork has increasingly replaced individual effort in scientific research, leading to a demand for trained research workers who can both specialise and co-operate with colleagues trained in other subjects, and also for men of outstanding qualities to direct large research departments. Research projects, at the same time, have become increasingly expensive and have to be selected with more care.

The research stations operated by DSIR are as follows: the *Building Research Station* near Watford, Hertfordshire, is concerned with the technique of building design and construction, and the organisation, productivity, and economics of building work; the *Forest Products Research Laboratory* at Princes Risborough, 36 miles west of London, studies the mechanical, physical and chemical properties of home-grown and imported timber; the *Geological Survey and Museum*, with headquarters in London and branch offices in Edinburgh and Leeds, maps the geological structure of the United Kingdom and publishes information on mineral resources of special importance, including underground water supplies; the *Hydraulics Research Station* at Wallingford, on the river Thames, studies problems of water flow in open channels such as rivers, estuaries and harbours, and coastal erosion; the *Joint Fire Research Organisation* is concerned with the detection, suppression, and inhibition of fires and the safety of life in fires; the *Laboratory of the Government Chemist* in London has a statutory function as official analyst and as an adjudicator in cases of disputed analyses and also carries out analytical research and advisory work for Government departments on request; the *National Chemical Laboratory* at Teddington, near London, concentrates on basic chemical research applicable to a wide variety of industries which is not being done elsewhere; the *National Engineering Laboratory* at East Kilbride, south of

Glasgow, carries out basic and applied research in mechanical engineering to provide industry with information required to solve its own particular problems and has unique facilities for making precision engineering measurements and testing hydraulic machinery and heat exchange plant; the *National Physical Laboratory* at Teddington conducts research in various branches of non-nuclear physics and maintains British primary standards and physical units; the *Radio Research Station* at Slough, west of London, carries out research on radio wave propagation and radio noise, taking advantage, in particular, of the new techniques provided by rockets and artificial satellites, and its space research programme also includes a tracking and prediction service and the maintenance of one of the World Data Centres for space research; the *Road Research Laboratory* at Harmondsworth, west of London, does research on road construction, safety and traffic flow; the *Torry Research Station* at Aberdeen (with a branch laboratory at Hull) investigates problems arising in the handling, processing, and transport and storage of fish; the *Tropical Products Institute* in London aims at improving the economical viability of the less-developed countries of the tropics, especially those within the Commonwealth, by research into new uses for tropical plant and animal products; the *Warren Spring Laboratory* near Stevenage, Hertfordshire, provides facilities for research and development, including pilot-scale work on subjects of national importance which cannot be fitted into the programme of other organisations, undertakes sponsored research and can accommodate teams from industry; the *Water Pollution Research Laboratory* at Stevenage is concerned with the safe disposal of sewage and trade effluents and with the purity of water supplies.

In 1939 the annual expenditure of DSIR for all purposes amounted to £500,000. For 1962-63 the total net expenditure is estimated at £18.1 million (compared with £15.4 million in 1961-62). The largest increases have been in support of work in the universities. Expansion of staff in DSIR's own laboratories and increases in grants to research associations are proceeding steadily and much more attention and money are being devoted to ensuring that the results of research are known and applied. To this end the National Lending Library for Science and Technology was established at Boston Spa in Yorkshire in 1960 (see p.224).

Medical Research Council

The Medical Research Council (MRC) is responsible to the Committee of the Privy Council for Medical Research, of which the Minister for Science is chairman and the Secretaries of State for the Home Department, Scotland, Commonwealth Relations and the Colonies and the Ministers of Health and of Labour are members.

The members of the council, appointed by the Committee of the Privy Council for Medical Research for a period of four years, are twelve in number. Nine members, representing different branches of medical knowledge and the fundamental sciences on which these are based, are appointed after consultation with the President of the Royal Society and with the council itself: on retirement, these scientific members are not eligible for immediate reappointment. Of the three lay members of the council, one must be a member of the House of Lords and one a member of the House of Commons.

The MRC's chief function is to promote research into all aspects of health and disease. In planning and carrying out its research programme, the council is assisted by special committees appointed to advise on particular subjects. Its arrangements for the support of research fall under four main headings:

- (1) investigations by members of the council's scientific staff, mostly working in its own research establishments;

- (2) temporary research grants to independent investigators in universities and elsewhere;
- (3) long-term research grants in support of specific research programmes in university medical departments; and
- (4) research fellowships and scholarships for tenure both at home and abroad.

The National Institute for Medical Research, at Mill Hill and Hampstead, London, is the council's main research establishment; in addition, there are about 80 smaller establishments, generally known as research units, which are attached in most cases to universities and hospitals in the United Kingdom. The council also undertakes work overseas and, with additional support from funds made available through the Department of Technical Co-operation, maintains laboratories in the Gambia and units in Uganda and Jamaica.

For the financial year 1962-63 the council's grant-in-aid is £5.8 million, compared with £5.6 million for 1961-62.

Agricultural Research Council

The Agricultural Research Council (ARC) is responsible to the Committee of the Privy Council for Agricultural Research, consisting of the Minister for Science, the Minister of Agriculture, Fisheries and Food and the Secretary of State for Scotland.

The council consists of 15 to 18 members, five of whom are appointed for their general experience of and interest in agriculture. Others are appointed by the Committee of the Privy Council, after consultation with the President of the Royal Society, on account of their qualifications in one or other of the sciences relating to agriculture. Included in the council's membership are the Chief Scientific Adviser (Agriculture) and the Chief Veterinary Officer of the Ministry of Agriculture, Fisheries and Food, also one member appointed by the Minister of Agriculture, Fisheries and Food and one by the Secretary of State for Scotland. Liaison is also maintained with the Ministry of Agriculture for Northern Ireland and the Royal Society by the appointment of representatives as assessors to the council.

The council has 24 research stations and units under its direct control in Great Britain including three laboratories concerned with the preservation, storage and protection of foodstuffs. It is also responsible for the financing of the independent research institutes in England and Wales. The programmes of all these institutes are co-ordinated and approved by the council and are integrated with those of the independent research institutes in Scotland, which are grant-aided by the Department of Agriculture and Fisheries for Scotland. (For particulars of some of the leading research institutes, see Chapter 11, Agriculture, Fisheries and Forestry.)

The council makes grants to universities and other recognised research institutions for special investigations, and awards research fellowships and postgraduate studentships in agricultural and veterinary science, agricultural and dairy engineering and agricultural statistics.

The greater part of the council's expenditure is met from the Agricultural Research Fund, which is financed by parliamentary grant-in-aid. For the year 1962-63 expenditure is estimated at £6.5 million, compared with £6.0 million in 1961-62.

Overseas Research Council

The Government established the Overseas Research Council in July 1959. The council is under the general control of a committee of the Privy Council and its

principal functions are to formulate overseas scientific research policy and to co-ordinate advice and assistance on research matters provided by the United Kingdom research councils and research specialist advisory committees (see p. 220). Matters concerning scientific development in the United Kingdom dependencies, in Commonwealth countries and in countries outside the Commonwealth can be referred to it. The council thus provides a central point to which Commonwealth government and research institutions can refer for advice and information, and advises generally on United Kingdom co-operation in scientific research overseas.

Nature Conservancy

The Nature Conservancy is responsible to the Privy Council Committee for Nature Conservation. Its functions, as summarised in the charter, are 'to provide scientific advice on the conservation and control of the natural flora and fauna of Great Britain; to establish, maintain and manage nature reserves in Great Britain, including the maintenance of physical features of scientific interest; and to organise and develop the research and scientific service related thereto'.

Research stations have been set up by the Nature Conservancy at Merlewood, Grange-over-Sands, in Lancashire, at Furzebrook, Wareham, in Dorset, and at Speyside, Inverness, and field stations at Moor House, Westmorland, and at Anancaun, Ross, and an experimental station at Monks' Wood, Huntingdon, where long-term ecological research is undertaken into such problems as the relation of vegetation to soils and climates, peat growth, effects of grazing and of moor burning, coastal erosion and roadside spraying. Grants are made for research, and the Nature Conservancy awards annually a number of postgraduate studentships. The grant-in-aid for 1962-63 is estimated at £590,000.

Nuclear Energy

Since 1959 the Atomic Energy Authority (AEA), set up under the Atomic Energy Authority Act, 1954, has been responsible to the Minister for Science for research and development in nuclear energy.

The Minister of Aviation has assumed the responsibility of the former Ministry of Supply for the development and production of nuclear weapons for the Services in accordance with agreed defence policy; in practice, however, the Atomic Energy Authority produces the explosive nuclear material and assemblies for nuclear weapons under contract and carries out weapon research. The Minister of Power (in Scotland, the Secretary of State) has a general responsibility for the civil nuclear power programme; the power stations are being built for, and will be operated by, the electricity authorities. The Admiralty is concerned (in close collaboration with the Atomic Energy Authority) in the development of nuclear power for naval propulsion, and a small working group, responsible jointly to the Minister for Science and the Minister of Transport, has been set up to advise on the programme of research to advance nuclear propulsion for merchant ships. The Authority collaborates with a number of other Government departments—the Ministries of Health, Labour, Housing and Local Government, Agriculture, Fisheries and Food, and Transport, the Post Office, the Scottish Office, and the Home Office—on various aspects of health and safety in relation to atomic energy.

Expert advice on radiation hazards is provided by the Medical and Agricultural Research Councils and by the Radioactive Substances Advisory Committee. This committee advises ministers on the administration of the Radioactive Substances

Acts which deal with the safeguards necessary in the use of radioactive substances and apparatus producing radiation.

The Atomic Energy Authority

The Atomic Energy Authority, appointed by the Minister for Science, at present consists of a chairman, a deputy chairman and ten other members, six of whom are part-time.

The Authority, like other statutory public corporations, is free from day-to-day Government control (subject to the power given to the responsible minister to issue directions to the Authority in matters of over-riding national importance), but differs from them in that most of its revenue is derived from money voted by Parliament, although income from other sources, such as the sale of radioisotopes and fuel elements, is expected to increase.

The organisation is divided into five groups controlling various establishments and has a London office, which is responsible for central financial, administrative and establishment matters, and for raw material procurement.

The *Research Group*, with the Atomic Energy Research Establishment (AERE) at Harwell as its principal establishment, conducts research into all aspects of nuclear energy. About a fifth of its work is fundamental research. Most of the applied research at Harwell is devoted to peaceful uses of nuclear energy, although some assistance is given on specific problems relating to weapons. The work is arranged in eleven divisions and the equipment includes reactors, accelerators, an isotope separator and a neutron project. All controlled thermonuclear research is being moved from Harwell and Aldermaston to a new research centre at Culham, Oxfordshire (a few miles north of Harwell).

Two other important establishments in the research group are: the Radiochemical Centre at Amersham, and the Radiation Laboratories at Wantage. The former, which prepares and distributes radioisotopes and other radioactive materials, has been enlarged to meet a demand for radioactive products which has more than trebled since 1955. Harwell also runs an isotope school, started in April 1951 and now situated at Wantage, and a reactor school, started in September 1954, which provides training for home and overseas students.

The *Weapons Group*, centred on Aldermaston, conducts research on and development of nuclear weapons and other research work with civil, as well as defence, applications. It has outstations at Foulness and Orfordness in eastern England, and Woolwich Common, London.

There are three groups with headquarters at Risley, in north-western England. The *Reactor Group* is responsible for the design and development of reactors. It is responsible for the Advanced Gas Cooled Reactor at Windscale which has recently been completed. The Group includes the Atomic Energy Establishment at Winfrith, Dorset, which houses among other things high-temperature gas-cooled reactor experiments such as *Zenith* and the *Dragon* project, the latter a 20 MW reactor due to be completed by 1963, financed jointly by a number of member countries of the Organisation for Economic Co-operation and Development (OECD), including members of the European Atomic Energy Community (Euratom). The United Kingdom is providing the largest share and will retain ownership of the reactor. The Reactor Group also includes the Dounreay experimental reactor establishment in the north of Scotland, which houses a materials-testing reactor and a fast-breeder reactor. The Group has research laboratories at the main establishments of the *Production Group*, which is responsible for the operation of factories producing

fissile material at Windscale (Cumberland), Capenhurst (Cheshire) and Springfields (Lancashire) and the AEA's nuclear power plants at Calder Hall (Cumberland) and Chapelcross (Dumfries). The third group with headquarters at Risley is the *Engineering Group*, responsible for the construction of plant, works and buildings, and for the design and inspection of fuel elements for production purposes.

National Institute for Research in Nuclear Science

In 1957 the Government set up a National Institute for Research in Nuclear Science (NIRNS), which provides, for common use by universities and others, facilities and equipment which are beyond the scope of individual universities and institutions carrying out research in nuclear energy. It does not replace the research already being done in individual universities with assistance from Government funds; nor does it affect the Government's participation in the international scheme for common facilities set up in Geneva under the auspices of the European Organisation for Nuclear Research (CERN). The institute is financed in the main by grants through the Atomic Energy Authority from the Atomic Energy Vote. Early in 1961 NIRNS took over from AERE responsibility for the development of particle accelerators. The Rutherford High Energy Laboratory at Harwell will house the institute's proton synchrotron (particle accelerator). This 7,000 million electron volt apparatus, due for completion in 1963, will be one of the largest such machines in the world.

Space Research

The Minister for Science, in consultation with other ministers, is responsible for sponsoring and co-ordinating Britain's space research programme. He is advised by a Steering Group on Space Research, representing Government departments and university scientists and they, in turn, are advised on the programme's purely scientific aspects by the British National Committee on Space Research, which is appointed by the Royal Society. This committee is also the United Kingdom body adhering to non-governmental scientific groups, such as the Committee on Space Research (COSPAR), established by the International Council of Scientific Unions (ICSU) in October 1958. The execution of the programme, under the general supervision of the Office of the Minister for Science, is in the hands of scientists in universities, such as those of London, Birmingham, Manchester and Belfast, and Government research establishments, such as the Ministry of Aviation's Royal Aircraft Establishment, at Farnborough, and Royal Radar Establishment, Malvern, and the Radio Research Station of the DSIR. The General Post Office undertakes research work connected with experiments in satellite communications. DSIR is responsible for channelling and administering grants to universities provided from Government funds. Private industry is also developing equipment and materials needed in space research. Identifiable Government expenditure on the scientific space research programme amounts at present to over £1 million a year.

A programme involving the firing of *Skylark* upper atmosphere vertical sounding rockets from the Woomera range in Australia, in co-operation with the Australian Government, has been in progress since the end of 1957. The current programme involves about 25 firings a year for research in upper atmosphere physics and meteorology. In 1961-62 the cost of rockets for this programme amounted to some £200,000.

Britain was one of the first countries to accept an offer made in 1959 by the United States to launch into orbit experiments of mutual scientific interest designed by foreign scientists. As a result the first international satellite experiment, the S-51

or *Ariel*, with British instrumentation, was successfully launched on 26th April, 1962, from Cape Canaveral by the US National Aeronautics and Space Administration (NASA). Plans have already been made for launching a second Anglo-American satellite about the middle of 1963. Because of the enormous cost involved, only the United States and the Soviet Union at present possess rockets capable of launching earth satellites, space probes or manned space vehicles. Two organisations in which Britain is playing a leading part are, however, being set up to give European countries the opportunity to participate in space research and technology—the *European Space Research Organisation* (ESRO) and the *European Launcher Development Organisation* (ELDO).

The General Post Office is co-operating with NASA and the French telecommunication authorities in a programme for transatlantic testing of satellite communication systems. A satellite, known as *Telstar*, was launched by NASA on 10th July, 1962. Television pictures, some in colour, and telephone messages were successfully exchanged, by reflection from it, between the United States station at Andover, Maine, and the United Kingdom station at Goonhilly Downs, Cornwall, which uses British equipment.

The satellite prediction centre at Slough, attached to DSIR's Radio Research Station, also the home of one of the three World Data Centres for Space Research, co-ordinates optical and radio tracking activities in Britain. Optical observation of satellites is carried out regularly by many individual observers in the British Isles and by the Royal Edinburgh Observatory's outstation (see below); radio tracking is undertaken at the Radio Research Station itself and by the radio telescopes at Cambridge, Jodrell Bank and the Royal Radar Establishment at Malvern.

Optical and Radio Astronomy

Large optical telescopes were first constructed in Britain by Herschel and Rosse in the eighteenth and nineteenth centuries. At present British optical observatories are being extensively re-equipped. The Isaac Newton 98-inch telescope, to be constructed for the Royal Greenwich Observatory, Herstmonceux, will provide additional facilities for optical astronomers in Britain; and grants to the Radcliffe Observatory in South Africa, with its existing 74-inch telescope, and the merger of the Royal Observatory, Cape Town, and the Royal Greenwich Observatory will enable astronomers to have improved use of large optical telescopes in both hemispheres. The Royal Edinburgh Observatory has been re-equipped with modern instrumentation for use in stellar spectroscopy and photometry. It is specialising in the introduction into astronomy of new electronic methods of observation and computation. The Observatory is also engaged in seismology and, at an outstation in Peeblesshire, on the tracking of artificial satellites.

Radio astronomy, developed since 1931, is carried out mainly at Cambridge, Jodrell Bank and Malvern. Two large radio telescopes at the Mullard Radio Astronomy Observatory, Cambridge University, were completed in 1957 and have made important contributions towards the testing of the various cosmological theories. The DSIR is granting £466,000 for a new triple paraboloidal radio telescope at Cambridge. At the Nuffield Radio Astronomy Laboratories of the University of Manchester at Jodrell Bank, there is a fully steerable paraboloid radio telescope of 250 feet diameter which has performed outstanding work since it started in 1957. The DSIR is granting £236,000 for a new fully steerable radio telescope on this site. There is also a new radio telescope interferometer at the Ministry of Aviation's Royal Radar Establishment near Malvern.

A Radio Astronomy Planning Committee was set up by the Minister for Science in December 1961 to advise him on the nature and extent of Britain's radio astronomy research programme both nationally and internationally.

Other Government-sponsored Scientific Research

All departments rely on one or other of the Government research councils for scientific advice. While some use these bodies as their main source of scientific information, a few have research organisations of their own.

Research and development is undertaken by the Service Departments primarily to meet the requirements of the armed forces, but a substantial amount of this work has important civil applications, for instance, in land transport, aviation, navigation and meteorology.

Agriculture, Fisheries and Food

The Ministry of Agriculture, Fisheries and Food carries out applied research in its own veterinary laboratories at Weybridge, Surrey, and at Lasswade, Midlothian, and also at its plant pathology laboratory at Harpenden, Hertfordshire; while at its infestation control laboratory at Tolworth, Surrey (with a field station at Worplesdon), it co-ordinates work on the control of insect pests of stored food and conducts research on the control of harmful mammals and birds. The Scientific Services of the Department of Agriculture and Fisheries for Scotland in Edinburgh undertake a number of statutory duties and international obligations in regard to crop improvement and crop protection. In Northern Ireland the Ministry of Agriculture is responsible for the promotion of agricultural research and research divisions dealing with a variety of aspects have been established.

The Ministry of Agriculture, Fisheries and Food maintains four laboratories for marine, shell-fish and salmon and freshwater fisheries research, and four research vessels; the Department of Agriculture and Fisheries for Scotland, maintains a marine research laboratory, four research ships at Aberdeen, and a freshwater research laboratory at Pitlochry.

The Development Commissioners, through their Advisory Committee on Fishery Research, co-ordinate all fishery research. From the Development Fund a number of independent institutions receive grants for marine and freshwater research.

With the guidance of the Chief Scientific Adviser (Food), the Food Science and Atomic Energy Division of the Ministry of Agriculture, Fisheries and Food is responsible for formulating the Ministry's general policy on the acquisition and dissemination of scientific and technical information about food and the food handling and processing industry; for furnishing scientific advice to the other divisions of the Ministry; and for sponsoring or carrying out experimental work. The division has its own experimental laboratories and kitchens in London. The Food Research Advisory Committee, appointed by the Minister of Agriculture, Fisheries and Food and the Secretary of State for Scotland, advises on food problems (other than fish, which is dealt with by the Department of Scientific and Industrial Research) requiring investigation or research which should be undertaken with the aid of public funds.

Forestry

The Forestry Commission undertakes experimental work relating to silvicultural and allied problems (see p. 356). By means of grants, it also aids forest research work undertaken by various universities and other institutions, including the Imperial Forestry Institute, Oxford.

Fuel and Power

The Minister of Power is responsible for research on safety in mines. The nationalised coal, electricity and gas industries are required to submit their research plans (see p. 274) for his concurrence and there is close collaboration between the Ministry of Power, the scientific departments of these industries and DSIR.

Transport and Aviation

The Ministry of Transport is concerned with research into aspects of marine navigation, marine propulsion, and road construction, but most of the basic work is carried out for the Ministry by the Admiralty and the Department of Scientific and Industrial Research. Research on radio aids for marine navigation is undertaken by the Admiralty, which is also responsible for research on nuclear propulsion and inter-Service electronic valve research, and for the administration of the Royal Greenwich Observatory, at Herstmonceux, and the National Institute of Oceanography.

The Ministry of Aviation, which carries out most of the research needed to meet the technical requirements of air defence, is also responsible for some civil research, for instance, at the Royal Aircraft Establishment and the National Gas Turbine Establishment at Farnborough, and at the Royal Radar Establishment, Malvern. Some fundamental research is carried out for the Ministry by universities and industrial organisations. The Ministry of Aviation is also responsible for research into airport operations and air traffic control.

Meteorology

The Air Ministry finances the Meteorological Office, which is responsible for research in meteorology and geophysics, mainly directed to non-military ends. The headquarters of the Office and most of its research sections are at Bracknell, Berkshire. The Forecasting Research Section has been equipped with a large-capacity electronic computer. Balloon and aircraft soundings and radar techniques are used to investigate the movement and composition of the atmosphere, and instruments are being designed which will be used in rockets and an earth-satellite. The Air Ministry also makes grants for fundamental meteorological research carried out under the auspices of the Royal Society or in university departments.

Land Use and Planning

The Ministry of Housing and Local Government deals with geographical, geological, economic and sociological research relating to the use and development of land in England and Wales. Similar arrangements are made in Scotland by the Scottish Home and Health Department, and in Northern Ireland by the Ministry of Health and Local Government.

Communications

The Post Office undertakes scientific research on a wide range of subjects related to the mechanisation of mail handling and to line and radio systems for telecommunications, as well as experimental development. When the work reaches the development stage it is usual to co-operate fully with industry, so that the final product has been jointly engineered. A prototype electronic telephone exchange, planned in conjunction with industry through the Joint Electronic Research Committee, and now in operation at Dollis Hill, London, is an example. Another important outcome is the novel submarine telephone cable system completed to Canada in 1961 and due to span the Pacific to Australia by 1963 and thence to South East Asia by 1966, the design having been adopted by the Commonwealth partners concerned. In this

instance the research and development was carried out by a unit run jointly by the Post Office and Cable and Wireless, Ltd., a Government-owned company concerned with long distance overseas telecommunications. Experiments with communication satellites are being conducted in conjunction with the United States and French authorities (see p. 217).

Medicine and Health

In addition to the work carried on under the ægis of the Medical Research Council, the Ministry of Health may conduct and promote research into the cause, prevention and treatment of illness. The Scottish Home and Health Department has similar responsibilities, in the discharge of which it is advised by its Advisory Committee on Medical Research; liaison with the Medical Research Council is also maintained. In Northern Ireland the Hospitals Authority (a statutory body set up by the Minister of Health and Local Government) has power to conduct or assist medical research. In addition, it has a statutory duty to provide adequate bacteriological and pathological services. The General Register Office carries out research in four main fields: (1) analysis and interpretation of statistics of causes of death; (2) statistical inquiry into the treatment of cancer and its results; (3) morbidity as revealed in hospital statistics; and (4) mental health.

Human and Social Sciences

The Council for Scientific and Industrial Research promotes research in the human sciences in several ways. It awards grants for special research schemes to universities, colleges of advanced technology and other research institutions. It also awards Fellowships and Studentships for postgraduate training in these sciences, as it does for other sciences. It conducts research in the general field of the human sciences at certain of its establishments, for instance the Building Research Station, the Road Research Laboratory and the National Physical Laboratory. Additionally, the Human Sciences Section of its Warren Spring Laboratory has a programme of which part is on contract to universities and other institutions. The Laboratory also publishes a Register of Research in the Human Sciences.

A great deal of social and economic inquiry is carried out inside Government departments. The Social Survey Division of the Central Office of Information is responsible for sample survey inquiries which involve direct contact with members of the public or of special groups. The Social Survey works at the request of all Government Departments and from time to time also carries out studies in collaboration with universities and other independent research organisations.

Colonial Development

Most of the research work relating to colonial development is done in the colonial territories and is assisted by funds made available under the Colonial Development and Welfare Acts and administered by the Department of Technical Co-operation advised by specialist committees. Much of this work requires close collaboration with research institutes and laboratories in Britain. The Overseas Research Council advises on general questions of policy and co-ordination.

Locust Control

An example of Britain's research work on behalf of colonial territories is provided by the Anti-Locust Research Centre in London, which has been internationally recognised as a world centre for locust research since 1931. This organisation receives and co-ordinates information on locust movements and breeding from some 40

countries, undertakes scientific research into the life history and habits of the different species of locust, and investigates and develops methods for their control and destruction. In co-operation with the United Nations Food and Agriculture Organisation (FAO), it provides an information service on the movements of desert locusts and provides forecasts of swarm movements which are distributed to the countries threatened.

Botany

There are a number of scientific institutions administered by Government departments which undertake research work in addition to their other scientific activities. These include the Royal Botanic Gardens, Kew, founded in 1759 and now administered by the Ministry of Agriculture, Fisheries and Food, which has the largest collection of living plants in the world. Its three research departments are: the Herbarium, concerned primarily with the classification and accurate determination of plants; the Jodrell Laboratory, for the study of plant anatomy and plant physiology, cytology and genetics; and the Museum of Economic Botany, dealing with the economic exploitation of plants. The library, attached to the herbarium, was founded in 1853; it consists of more than 55,000 botanical books, about 80,000 reprints and separately issued items and a collection of over 150,000 drawings and paintings of plants.

Scientific Museums

The British Museum (Natural History)—an independent section of the British Museum—contains one of the world's largest collections of natural history material and is recognised as a leading research institution. The Science Museum illustrates the development of pure and applied science in all countries, but chiefly in Britain, which has always held a leading place in engineering, agriculture, navigation, mining, aeronautics, and in the development of industrial machinery and processes, all of which are represented in the museum's collections. The geology of Britain is known in more exact detail than that of any other country in the world, and the Geological Survey (since 1919 an establishment of DSIR), responsible for this work, has an outstanding collection of exhibits in its Geological Museum. These three museums are in South Kensington, London.

Important collections outside London are the Museum of Science and Industry, in Birmingham, and the Museum of the History of Science, at Oxford.

The Parliamentary and Scientific Committee

The Parliamentary and Scientific Committee was founded at the end of 1939 by members of the House of Commons and replaced the former Parliamentary Science Committee. It is one of a number of unofficial, all-party parliamentary groups which have grown up spontaneously and have varying degrees of influence. Membership is open to members of Parliament of any party in both Houses, and also to nominated representatives of such non-profit-making scientific and technological organisations in Britain as may be affiliated under its constitution. The committee provides, as far as possible, for a regular exchange of information between members of Parliament and scientists.

Scientific Liaison Overseas

The history of scientific progress is essentially a story involving many nations; the organisation of a country's scientific research would, therefore, be incomplete without provision for adequate liaison with other countries.

Before the second world war, international scientific collaboration took place through the exchange of university staffs, the awards of scholarships and fellowships, the close relations existing between the learned societies in Britain and their equivalent bodies abroad, and through international conferences and congresses.

The war and the post-war period saw the emergence of a number of new developments in overseas scientific collaboration, including the exchange of scientific information. Well-known examples are the specialised agencies of the United Nations Organisation (the United Nations Educational, Scientific and Cultural Organisation, the World Health Organisation, the Food and Agriculture Organisation) and those concerned with nuclear energy (the International Atomic Energy Agency, the European Organisation for Nuclear Research [CERN], the European Nuclear Energy Agency) and space research (the European Space Research Organisation [ESRO]), in all of which the United Kingdom is playing a full part. The United Kingdom is also represented on the Governing Committee for Scientific and Technical Personnel of the Organisation for Economic Co-operation and Development (OECD) and on the Science Committee of the North Atlantic Treaty Organisation (NATO), and collaborates bilaterally with a number of countries in nuclear energy. Besides agreements between the AEA and other atomic energy authorities, including that of the Soviet Union, there are inter-governmental agreements with eight countries, including the United States, with which collaboration is now particularly close. There are permanent representatives of the United States Atomic Energy Commission in London and of the United Kingdom AEA in Washington. Controlled thermonuclear (fusion) reactions and nuclear marine propulsion are two important subjects on which there are regular discussions and exchanges of experts.

Among the various channels through which scientific liaison is conducted are:

The British Commonwealth Scientific Offices

A feature of the war-time pattern of scientific collaboration was the establishment of scientific missions in London by the United States and Commonwealth countries, and in Washington by the United Kingdom and Commonwealth countries. The latter subsequently joined together as the British Commonwealth Scientific Office (North America). In 1946 a British Commonwealth Scientific Conference was held to see how the war-time collaboration and co-operation could be continued and extended. Among the recommendations of the Conference was the continuance of the British Commonwealth Scientific Office (North America) and the establishment of the British Commonwealth Scientific Offices (London), a group of offices containing the scientific representatives of Commonwealth countries with whom the Overseas Liaison Group of the DSIR is closely associated.

British Commonwealth Scientific Committee

The British Commonwealth Scientific Committee, consisting of the heads of the research organisations of Commonwealth countries, formed in 1958 from the previous Standing Committee set up in 1946, holds conferences about every two years.

Commonwealth Agricultural Bureaux

The Commonwealth Agricultural Bureaux comprise three Institutes and ten Bureaux, each concerned with a particular branch of agricultural science. Their purpose is to act as clearing houses for the interchange of information of value to research workers in agricultural science throughout the Commonwealth. This they achieve by scanning and indexing journals of scientific repute in all languages, by

keeping in touch with agricultural research in progress and by the dissemination of this information by the periodic issue of Abstract Journals. Fifteen Abstract Journals are published periodically and have a combined annual circulation of about 22,500 copies. A list of research workers in agriculture, animal health and forestry in the Commonwealth is published from time to time, and this list includes an indication of topics under investigation by the individual workers concerned. The Bureaux also issue monographs on particular subjects within their respective fields and deal with inquiries received from research workers in all parts of the Commonwealth. In addition, the Institutes provide taxonomic and identification services.

The Standing Committee on Overseas Scientific Relations

This is a committee of the Advisory Council on Scientific Policy which was set up after the second world war to consider and advise on United Kingdom Government policy on overseas scientific relations. In view of the Government's increasing interest in international organisation for scientific co-operation, the committee was reconstituted in 1958 as a small committee concerned primarily with questions of policy and scientific co-operation. The chairman of the Advisory Council on Scientific Policy acts as its chairman, and its secretariat is provided jointly by the Office of the Minister for Science and the Overseas Liaison Group of the DSIR.

The Overseas Liaison Group of the DSIR

This group, which is part of the Information Division of the DSIR, is broadly responsible for the overseas relations and activities of the department. In addition to its executive work for the Standing Committee on Overseas Scientific Relations, it is responsible for the administration of the scientific attachés, advisers and missions at present stationed in Washington, Paris, Bonn, Stockholm, Moscow, Tokyo, and New Delhi. These representatives are accredited to a total of 12 countries (Austria, Canada, Denmark, Finland, France, Germany, India, Japan, Norway, the Soviet Union, Sweden, and the United States) and are also concerned with five others (Belgium, Italy, Luxembourg, the Netherlands and Switzerland) as required. The group is responsible for ensuring that information collected by representatives is effectively disseminated in the United Kingdom. The attachés, advisers and missions and the Overseas Liaison Group itself have inter-departmental responsibilities, although the group is placed within the DSIR for convenience of organisation.

The group forms the United Kingdom element of the British Commonwealth Scientific Offices (London) and is also associated, through the United Kingdom Scientific Mission in Washington, with the British Commonwealth Scientific Office (North America). It is responsible for the DSIR interests in a number of international organisations, such as OECD, NATO, UNESCO, ILO.

The British Council

The aims of the British Council in the pure and applied sciences are to foster closer co-operation between British scientists and scientists of other countries, and to promote a better understanding of Britain among overseas specialists by disseminating a knowledge of British activities and achievements. Under the first objective the exchange of visits between scientists in the United Kingdom and other countries is of prime importance. Besides arranging lecture or advisory tours overseas by eminent British scientists, the British Council, among many activities of a similar nature, brings to the United Kingdom every year a number of senior overseas specialists, post-graduate students and technologists on visits of varying duration, for the purpose of

study in British universities and other institutions, or for discussion with British experts. The Council organises a number of short courses for overseas specialists every year, including such subjects as meteorology and farm management. In addition to publishing the *British Medical Bulletin*, a journal issued every four months and intended primarily to keep overseas specialists informed of progress in medical research in Britain, the Council maintains an extensive and much used specialist information service. In countries in which the British Council is represented, libraries are maintained and in many instances these have strong sections of scientific and technological literature.

The British Council maintains at its headquarters specialist departments for medicine and science (including agriculture and engineering), and scientists serve on the staffs of a number of its overseas offices. The British Council is advised by eminent scientists who serve on its Science Advisory Committee and on specialist panels for the different subjects.

Communicating Results of Research

The dissemination of the results of research to other research workers and to ultimate users has become a problem of some magnitude as the volume of information has grown. The traditional method of scientific publication, in which results are written up into papers and published in journals, is still the main means of communication among scientists. The leading learned societies have for long been important agencies for communicating scientific information.

Both the DSIR and the AEA devote considerable sums to information services. Besides its own publications and services, DSIR gives financial support to ASLIB (the Association of Special Libraries and Information Bureaux), which runs a technical information department and maintains a panel of translators and a Commonwealth Index of Translations covering scientific subjects. A new National Lending Library for Science and Technology (NLL), which started operations under the DSIR at Boston Spa, Yorkshire, in 1961, came into full operation in 1962. It covers all subjects in science and technology (other than some branches of medicine) and is also responsible for increasing the volume of translations of foreign (especially of Russian and Chinese) scientific literature, in which work it collaborates with the National Science Foundation of the United States.

Besides information services provided by its various groups, the AEA has an information centre and an isotope information bureau at its London headquarters.

In agriculture, the Commonwealth Agricultural Institutes and Bureaux provide abstracts and an information service in various branches of agricultural science. The ARC publishes an *Index of Agricultural Research in Progress*, and gives an account of current developments in its annual reports. The advisory services of the agricultural departments bring research results directly to the farmer.

Medical research results are communicated mainly through journals and periodicals; but the MRC issues special reports and includes special articles in its annual reports.

A national Reference Library for Science and Invention is to be formed out of the Patent Office Library; it will be part of the British Museum Library. Work on a new building for it will be begun in London on the south bank of the Thames in 1963, and should be finished by the end of 1965.

Development Agencies

Several agencies assist in the commercial development and spread the use of new inventions.

National Research Development Corporation

The National Research Development Corporation (NRDC) was set up by the Board of Trade in 1949 under the Development of Inventions Act, 1948. Its primary function is to develop and exploit, in the public interest, inventions resulting from research carried out by Government departments and other public bodies. It may also develop and exploit an invention from any other source where, in the Corporation's view, the public interest requires it. Under the Development of Inventions Act, 1954, the NRDC may promote or assist research to meet specific practical requirements, or may assist the continuation of research which may lead to inventions of practical importance. It is an independent body, subject only to general direction by the Board of Trade, with powers, under the Development of Inventions Act, 1958, to borrow from Government funds to a total of £10 million up to 1968. Projects sponsored by the Corporation include among many others such varied items as electronic digital computers, towed flexible barges (known as dracones), interferon (an anti-virus agent), selective weed-killers, a new form of transport known as the hovercraft, a hydrogen-oxygen fuel cell as a transportable source of electricity and a group of new antibiotics called cephalosporins. The Corporation has a substantial annual income from the exploitation of inventions.

Technical Development Capital Limited

A new private financial institution, Technical Development Capital Limited, was formed in January 1962 to help to bring technical developments to the profitable stage. It has a capital of £2 million, raised from insurance companies, merchant banks and other institutions in Britain, Canada and Australia. Up to the end of March 1962 the new company had already considered 100 out of 250 applications received.

THE PROMOTION OF THE ARTS

This section will not attempt to discuss current trends in the arts or the work of individual British painters, sculptors, authors or musicians, but will try to give a summary of official and unofficial assistance in the preservation of Britain's cultural heritage and the encouragement of the arts today.

There is no equivalent to a Ministry of Fine Arts to formulate and administer policy in the arts; but bodies such as the Standing Commission on Museums and Galleries and the Royal Fine Art Commissions for England and Wales and for Scotland act in an advisory capacity. Government interest is expressed mainly through the provision of grants to the Arts Council, the British Council (see footnote on p. 176), the British Film Institute, the Council of Industrial Design, and other organisations, and also to museums and art galleries.

Government expenditure on the arts is now over £9 million a year. Of this total, over £3½ million is the cost of upkeep of the national art collections in museums and art galleries, over £2 million the amount of the grant to the Arts Council, and more than £1 million is expenditure on preserving historic houses and their contents.

Municipalities, large and small, also play their part in sustaining the arts. Under the Local Government Act of 1948 they may use part of their revenue from rates (see p. 77) for this purpose; they also have powers which permit capital expenditure on new buildings for the arts, and can make grants to schools of art, music and drama. As a rule local councils refrain from actual management of orchestras and theatre companies (usually having a representative on the governing boards or trusts concerned), but they often provide the arenas for the performance of music or drama.

In Northern Ireland, the Council for the Encouragement of Music and the Arts (CEMA) receives a grant from the Northern Ireland Government of £29,000 plus up to a maximum of £7,500 on a £ for £ basis on contributions from local authorities.

Unofficial institutions concerned with the promotion of the arts include many charitable trusts and foundations, among them the Carnegie United Kingdom Trust, the Pilgrim Trust, the United Kingdom branch of the Calouste Gulbenkian Foundation, and a large number of societies, associations and other organisations concerned with separate aspects of the arts; examples are mentioned later in this chapter. Industrial patronage has increased considerably in recent years.

The Arts Council of Great Britain was established under a Royal Charter in 1946. It consists of not more than 16 honorary members appointed by the Chancellor of the Exchequer in consultation with the Minister of Education and the Secretary of State for Scotland. Its main duties are to increase the accessibility of the fine arts to the public, to improve the standard of execution in the fine arts, and to advise and to co-operate with Government departments, local authorities and other organisations on any matter connected with these aims. The corresponding body in Northern Ireland is CEMA, the board of which consists of the president and vice-president, four members nominated by the Minister of Education for Northern Ireland, four by the Senate of Queen's University, and six elected by the Association of CEMA.

The Carnegie United Kingdom Trust was founded in 1913 by the late Andrew Carnegie. It was incorporated under Royal Charter in 1917. The trust, which was initially founded for 'the improvement of the well-being of the masses of the people of Great Britain and Ireland', consists of 25 life trustees, six trustees nominated by the Corporation of Dunfermline and three trustees nominated by the Fife County Council. Its cultural policies include the support of adult amateur activities in music, drama and the visual arts. It also assists non-national museums. Grants totalling £26,576 were made for these purposes during the year ended 31st December, 1961.

The Pilgrim Trust was founded in 1930 by the late Edward Stephen Harkness, an American citizen. The trust, which has an income of about £210,000 a year, is administered by a body of trustees who are empowered to make grants towards any legally charitable object within the United Kingdom. In fact, the greater part of the trust's income is at present being used to help to preserve the nation's heritage of architecture and history, and for the advancement of learning and the arts. The grants made for these objects during 1961 amounted to £197,000.

The Calouste Gulbenkian Foundation of Lisbon was established in 1955 under the will of the late Calouste Gulbenkian. A branch in the United Kingdom is responsible for the Foundation's activities in Britain and in other Commonwealth countries. During 1961 the Foundation made grants totalling £148,000 for the arts in Britain, and continued to implement the policy proposed in the report, *Help for the Arts*, prepared for the Foundation in 1959 by a small private committee under the chairmanship of Lord Bridges.

The arts benefit most when the patrons—central and local government, voluntary bodies, industry, the universities and individuals—combine. The most outstanding example is the Edinburgh Festival Society; other Arts Festivals which have developed a similar basis of responsibility are those of York, Leeds, King's Lynn and Norwich. A notable example in regional co-operation in arts patronage has been set by the North Eastern Arts Council: it combines representatives of local councils, chambers

of commerce, Tees and Tyneside Television Co., universities, industrial firms and trade unions.

VISUAL ARTS

A number of modern British painters and sculptors now have a high international reputation, established partly through the organisation of exhibitions on an unprecedented scale throughout Europe and America since the second world war. In addition, they have received international prizes, and commissions for major works in foreign cities. The growth of interest in the visual arts at home has been stimulated by an increasingly lively attitude towards display on the part of museums and galleries, and by exhibition programmes and the varied activities of many institutions, societies and private galleries. While it would be untrue to say that there is a general appreciation of contemporary art, interest and curiosity are growing, generated, partly at least, by the high prices fetched by certain works of art at auction.

The art schools are full and young artists find it easier to exhibit and sell their work than was formerly the case.

Painting and sculpture receive State support by grants to national institutions and, indirectly, through grants made to the Arts Council, to municipal art galleries and museums, and to local education authorities for art schools and other means of promoting education in art.

In the year April 1961 to the end of March 1962 the Arts Council arranged 76 separate art exhibitions in Great Britain; 294 showings of these exhibitions were given in 160 different centres. In Northern Ireland, 43 exhibitions were arranged by CEMA. Knowledge of Britain's fine arts is fostered overseas by the British Council by means of exhibitions, the dissemination of reproductions and photographs, lectures, and the provision of information and advice to inquirers abroad and to visitors in Britain. In the year ended March 1962, 39 fine art exhibitions organised by the Council were shown in 46 countries. The Council was also responsible for British participation in seven international exhibitions. Since 1948, 35 international awards have been won by British artists.

Museums and Art Galleries

There are in all about 900 museums and art galleries open to the public in the United Kingdom, though many are only small collections or merely a few rooms set aside in a public building for the display of local treasures.

The national museums and art galleries in London probably contain between them the most comprehensive collection of objects of artistic, archaeological, scientific, historical and general interest ever to exist within one city. The British Museum has unparalleled collections of archaeological and ethnographical material from every part of the world, in addition to housing the national library of printed books, manuscripts, newspapers and periodicals; its Department of Prints and Drawings also possesses collections of the widest extent and richness. The Victoria and Albert Museum contains works of fine and applied art of all countries and periods, arranged mainly according to material, though primary collections have been arranged to bring together, by style, period or nationality, masterpieces of all the arts. The National Gallery houses paintings by almost all the greatest European masters. The Tate Gallery embodies two collections: the British school from the eighteenth century onwards, with a few earlier works, and modern foreign schools (since 1850). Both sections include modern sculpture. Frequent loan exhibitions are held in the Tate Gallery.

Other important collections in London are at the National Portrait Gallery, the Imperial War Museum, the National Maritime Museum at Greenwich, the Public

Record Office Museum, which contains Domesday Book and other famous historical documents, the Guildhall Museum, the London Museum in Kensington Palace, where the collection illustrates the history of the capital, and the Wallace Collection at Hertford House (furniture, armour, *objets d'art* and paintings, mainly French works of the seventeenth and eighteenth centuries). In the summer of 1962 a small but important art gallery was opened in part of Buckingham Palace for exhibitions of pictures from the extensive Royal collections.

The Ministry of Education is responsible for the administration of the Victoria and Albert Museum and the Science Museum.¹ The other national collections are run by trustee bodies. All are financed from Government funds. Besides meeting the administrative costs, this finance takes the form of annual purchase grants, which have recently been substantially increased, and of special *ad hoc* purchase grants. The collections may also receive certain pre-eminent works of art acquired by the Treasury in lieu of estate duty. The buildings are maintained by the Ministry of Public Building and Works.

There are six national museums and art galleries in Edinburgh: the National Museum of Antiquities of Scotland, the National Gallery of Scotland, the Royal Scottish Museum, the National Portrait Gallery of Scotland, the Scottish United Services Museum, and the Scottish National Gallery of Modern Art, which was opened to the public in 1960. The National Museum of Wales, in Cardiff, has a branch at St. Fagan's Castle where the Welsh Folk Museum is housed. The Ulster Folk Museum is sited close to Belfast. The former City of Belfast Museum and Art Gallery, now known as the Ulster Museum, has recently been transferred from civic to national control and is administered by a statutory body receiving financial aid from the Government of Northern Ireland. In addition, a small Belfast gallery under the control of CEMA promotes exhibitions by contemporary painters and craftsmen.

The Government is advised on questions relating to the most effective development of the national institutions as a whole, and on their co-operation with provincial institutions, by the Standing Commission on Museums and Galleries, set up in 1931. The Standing Commission publishes periodic reports.

Almost every city and large town has a museum devoted to art, archaeology and natural history, usually owned by the municipal authority but sometimes by a local learned society or privately by individuals or trustees to whom some wealthy collector in the past has bequeathed his treasures. Both Oxford and Cambridge are rich in museums—the Ashmolean Museum in Oxford, founded in 1683, is the oldest in the country and the Fitzwilliam Museum in Cambridge has fine art galleries and a notable collection of engravings, manuscripts and books bequeathed by its founder on his death in 1861. Other universities have notable collections, primarily for teaching purposes but also open to the public. Other cities with important museums and art galleries are Birmingham, Bristol, Glasgow, Leeds, Leicester, Liverpool, Manchester, Norwich, Southampton, and York where the Castle Museum, with its complete reconstruction of an eighteenth-century street of shops, offers a most interesting historical display. The Herbert Art Gallery and Museum at Coventry, the first major art gallery to be built in the provinces since 1939, was opened in 1960. In recent years there has been a notable development of 'period-house museums', for which outstanding private residences of former times have been taken over by national and municipal authorities, as at Temple Newsam, Leeds; Aston Hall, Birmingham; and the Royal Pavilion, Brighton. Private art collections are to be seen in the historic

¹ For information on the scientific museums, see page 221.

family mansions (including many in the ownership of the National Trust) which are now open to the public at certain times.

In 1959 the first area museum council in Britain was inaugurated for the south-west, and a similar organisation for the Midlands was started in 1961. The objects of such councils are to promote closer co-operation between museums and art galleries in the region, to improve technical facilities, and to provide financial assistance.

Financial assistance for improving the displays of the smaller museums is among the functions of the Carnegie United Kingdom Trust, which has done much to encourage the growth of the museum movement during the past thirty years, and at present spends an average of £10,000 a year for this purpose. The Victoria and Albert Museum also administers an annual Government grant of £25,000 to help local museums and art galleries to buy works of art for their collections.

The Museums Association, founded in 1889, is an independent organisation to which museums and art galleries and their staffs throughout the country belong; there are also many overseas members. The association serves as a central body for the collection of information and the discussion of matters relating to museum administration, and as a training and examining body for professional qualifications.

Temporary exhibitions produced by the Arts Council, the Art Exhibitions Bureau, and the Circulation Department of the Victoria and Albert Museum are a regular feature of many museums.

The various national art exhibiting societies include the Royal Academy, which, in summer, holds exhibitions of works by members and non-members and, in winter, exhibitions usually devoted to national schools of painting or to the art of a particular period; the Royal Scottish Academy; the Society of Scottish Artists; the Royal Society of British Artists; the Royal Society of Painters in Water Colours; the Royal Society of Portrait Painters; the Artists' International Association; the Women's International Art Club; and the London Group (all the foregoing are associations of professional painters); and the Institute of Contemporary Arts. Some of these societies, notably the Royal Academy at Burlington House, have their own galleries in London. In Northern Ireland there are the Royal Ulster Academy of Arts, the Ulster Society of Women Artists and the Ulster Arts Club. Among regional societies are the Newlyn Society of Artists, the Midland Group of Artists (Nottingham), the Birmingham Society of Artists and the Penwith Society of Arts, while an increasing number of amateur art societies throughout the United Kingdom hold local exhibitions and encourage local interest in the fine arts in a variety of ways. The Contemporary Art Society uses its members' subscriptions to buy modern works which it presents to the public galleries.

Exhibitions of works by old masters and living artists are held throughout the year in the galleries of the art dealers of London (largely in the Bond Street area). The Whitechapel Art Gallery shows a series of important exhibitions in the East End of London; and the London County Council has shown an exhibition of modern sculpture in one of its parks every third year since the second world war. John Moore's exhibition, which takes place in Liverpool every two years, is open to all British painters and sculptors and sets a high professional standard; important prizes are awarded. There are also exhibitions of children's art, including the National Exhibition of Children's Art sponsored annually by the *Sunday Pictorial*.

Art Education

There are 15 regional colleges of art in the United Kingdom, all of which offer courses in most branches of art and a varying range of crafts; and there are schools

of art in nearly all the larger towns. In London, the most notable of these schools and colleges are the Royal College of Art (a national college) and the Central School of Arts and Crafts of the London County Council, in both of which the emphasis is on industrial design, and the Slade School of Fine Arts in the University of London. At the Royal Academy Schools, founded in 1768, all instruction is provided free by Royal Academicians.

The leading academic institutions for the teaching and study of the history of art are the Courtauld Institute of the University of London, the Department of Classical Art and Archaeology in University College, London, and the Warburg Institute (also a part of London University) which provides facilities for research on the character and history of the classical tradition.

Art has a place in the curriculum of every type of school, and the Society for Education through Art, among its other activities, encourages the purchase by schools of original works of art by organising an annual Pictures for Schools exhibition. The Arts Council operates a loan scheme for reproductions of works of art which is used extensively by schools.

Industrial Design

The Council of Industrial Design was set up in 1944 by the President of the Board of Trade as a grant-aided body with the purpose of promoting the improvement of design in the products of British industry. The council has 28 members, a majority being prominent industrialists, and there is a separate Scottish committee.

The council runs a permanent exhibition, The Design Centre, in the Haymarket, London. This is a selective, changing display of well-designed British consumer goods in current production. To supplement this display, an illustrated record of good design, known as *Design Index*, is maintained at the Centre. A maximum of 20 Design Centre awards are presented annually to the makers of outstanding products shown in the Centre during the previous year. In 1959 an additional award was instituted, the Duke of Edinburgh's Prize for Elegant Design which is now presented annually to the designer of a single product chosen from the Index. Permanent design exhibitions opened in Bristol in 1958 and in Nottingham in 1960: both these function independently. The Scottish Design Centre opened in Glasgow in 1957. The council also organises conferences, courses and exhibitions in Britain and overseas, and maintains a record of designers and a photographic and reference library on industrial design. It has an education section and a retail section and publishes a monthly magazine, *Design*.

Other bodies concerned with industrial design include the Royal Society of Arts (see p. 205), the Society of Industrial Artists, which is the representative professional body in Great Britain of designers engaged in industry and commerce, and the Design and Industries Association (DIA), founded in 1915. The DIA is a voluntary association of industrial companies, designers, and other bodies and individuals interested in the promotion of good design in industry.

Architecture

Official responsibility towards the nation's architecture is concerned with encouraging the best in new building and preserving the best that has been inherited from the past.

The Government departments chiefly concerned with domestic architecture are the Ministry of Housing and Local Government, the Scottish Development Department, and the Northern Ireland Ministry of Health and Local Government, which are responsible in their respective countries for approving the layout and design of

local authority housing schemes, and which issue reports and circulars setting standards for local authority housing. The Ministry of Public Building and Works is concerned with the design, construction and maintenance of Government civil buildings and also with the preservation of historic buildings and ancient monuments in Great Britain. In Northern Ireland responsibility for the preservation of ancient buildings is vested in the Ministry of Finance. All these departments have architects on their staffs, as have also the local authorities concerned with housing and planning.

A number of professional, advisory and other societies and institutions exist to further the interests of architecture and the preservation of buildings of aesthetic value or historic interest.

Several State-sponsored organisations are concerned with special aspects of architecture. The Royal Fine Art Commission (appointed in 1924) and the Royal Fine Art Commission for Scotland (appointed in 1927) advise Government departments, planning authorities, and other public bodies on questions of public amenity or artistic importance; many large-scale modern buildings have had the approval of the commissions. The National Buildings Record maintains a library (open to the public for consultation) of over half a million photographs of English and Welsh architecture and an index of architectural records in public and private possession. The Scottish National Buildings Record carries out similar functions. The Royal Commissions on Ancient and Historical Monuments for England, for Wales and Monmouthshire, and for Scotland, record in detail all ancient and historical remains in their countries and publish a series of surveys, designed ultimately to cover the whole of Great Britain. The Ancient Monuments Boards for England, Scotland, and Wales, set up under the Ancient Monuments Acts, consider which monuments should be listed in accordance with those Acts and advise the Minister of Public Building and Works on any questions concerning ancient monuments. In Northern Ireland the Ministry of Finance administers the Ancient Monuments Acts (Northern Ireland) and is advised by the Ancient Monuments Advisory Council. The Historic Buildings Councils for England, Scotland, and Wales, constituted under the Historic Buildings and Ancient Monuments Act, 1953, advise the Minister of Public Building and Works on the provision of grants towards the repair and maintenance of such buildings (see p. 188). The Historic Buildings Council for Scotland also advises the Secretary of State for Scotland on the exercise of his functions relating to buildings of architectural or historic interest under the planning Acts. An Historic Buildings Bureau finds new uses for unoccupied historic buildings of outstanding interest.

The leading professional architectural institution in the United Kingdom is the Royal Institute of British Architects (RIBA) to which are allied 48 autonomous architectural societies covering the whole of the United Kingdom and most of the overseas Commonwealth. The Royal Institute has a membership of over 20,000, and some 5,000 students. It has one of the largest and most important architectural libraries in the world, housing over 65,000 books and periodicals and many thousands of drawings. The RIBA holds an annual conference and is concerned with a wide range of activities covering professional practice, science, technology, statistics, architectural competitions, professional and public relations. It arranges lectures, symposia and discussions on a variety of subjects, presents exhibitions and through its Board of Architectural Education controls the training and examination of architects. The Royal Gold Medal for Architecture is awarded annually by the Queen on the recommendation of the RIBA.

Education in architecture in the United Kingdom is given at 28 Schools of Architecture recognised for exemption from the RIBA Intermediate and Final examinations

and one recognised for the Intermediate examination only. In addition, there are 42 schools of art and technical institutes (nine full-time) which prepare students for the external examinations of the RIBA.

It is against the law for any person to practise or carry out work under any name, style or title containing the word 'architect' unless he or she is registered. The statutory body which regulates registration is the Architects' Registration Council of the United Kingdom. The principal professional associations of architects are the Incorporated Association of Architects and Surveyors, the Institute of Registered Architects, the Faculty of Architects and Surveyors, the Royal Incorporation of Architects in Scotland, and the Royal Society of Ulster Architects. Other societies include the Architectural Association, the Architecture Club, and a number of societies interested in particular aspects of architecture, such as the Modular Society.

The Civic Trust, established in 1957, seeks to promote high standards in architecture and civic planning and to encourage a wider interest in the appearance of towns, villages and the countryside. In 1959 the Trust introduced a system of awards for good architectural design, to be given in two classes; the first for planning developments, such as housing estates, the second for smaller projects, for example, shop fronts.

Among the preservation societies are the Georgian Group, a society designed to awaken interest in Georgian architecture and to save Georgian buildings from destruction; the Society for the Protection of Ancient Buildings; and the National Trust in England, Wales and Northern Ireland and the National Trust for Scotland, which together own more than a hundred houses of historic or architectural interest, many of which contain pictures and other works of art. Most of these houses, and other ancestral homes, are open to the public at a small charge and attract large numbers of visitors. The Treasury also makes use of its powers to accept historic houses and their more important contents in lieu of death duties. Such properties are normally administered by the National Trust. The Historic Churches Preservation Trust was formed in 1952 under the chairmanship of the Archbishop of Canterbury, in order to raise funds to supplement the efforts of parishes to put their churches into good repair. By the end of 1961, it had made available sums totalling £545,889 to 1,287 churches and chapels of various religious denominations.

LITERATURE

A knowledge of literature is fostered in the United Kingdom by the schools, colleges and universities of the country, in all of which English literature is taught either as part of a general course or as a specialist subject. Interest in the subject is thereafter maintained by the libraries, by the very large number of private literary societies (both national and local), by book reviews in the press and on the radio, and by the numerous periodicals concerned in whole or in part with literature. State support for literature is given through the Arts Council and the British Council.

Recognition of outstanding literary merit is given in the form of literary prizes, a number of which are awarded annually, for instance, the two James Tait Black Memorial prizes for biography and literature, the John Llewellyn Rhys Memorial prize for young writers of promise, the Hawthornden prize for imaginative writing, the Library Association Carnegie Medal for an outstanding book for children, the Kate Greenaway Medal for the best children's book illustration and the Somerset Maugham award for young writers. The Arts Council makes triennial awards for the best books of poetry published; it also encourages poetry readings and subsidises the Poetry Book Society.

Libraries

The largest library in Britain is that of the British Museum in London (about $6\frac{1}{2}$ million volumes). The National Library of Scotland (over 2 million volumes) is in Edinburgh, and that of Wales in Aberystwyth (nearly 2 million volumes). Together with the Bodleian Library in Oxford ($2\frac{1}{2}$ million volumes) and the Cambridge University Library (about $2\frac{1}{2}$ million volumes) these comprise the 'copyright' libraries of the country and are entitled to receive a copy of each new book published in Britain: the British Museum Library must receive a copy, the other libraries may claim one.

Other great libraries include¹: the University of London Library,² the libraries of the universities of Edinburgh, Glasgow and St. Andrews, and Queen's University Library, Belfast; the London Library (the largest public subscription library) and the John Rylands Library, Manchester; the Science Museum Library, the Victoria and Albert Museum Art Library and the British Museum (Natural History) Library; the Patent Office Library, the India Office Library, the National Lending Library for Science and Technology and the Public Record Office (which contains the non-current records of the superior courts of law and of most of the Government departments); the libraries of the Royal Institute of International Affairs, the Royal Commonwealth Society, the Commonwealth Institute, the Royal Geographical Society, the British Drama League, the Royal Institute of British Architects, the Royal College of Music and the Royal Academy of Music; the Central Music Library; and the National Library for the Blind. The Arts Council has founded a reference and lending library of modern English poetry, which is housed with the National Book League. The National Register of Archives, maintained by the Historical Manuscripts Commission in the Public Record Office building, contains particulars of numerous local and private records.

The public libraries of Britain maintain a service throughout the country, administered by 548 public library authorities (county councils, county borough councils, municipal borough councils, urban district councils and a few parish councils). Together these authorities provide more than 40,000 service points; they hold about 75 million books and make more than $441\frac{1}{2}$ million loans a year. (These figures do not include the use made of libraries in the publicly maintained schools.) A feature of the service in rural areas is the travelling van, which is an itinerant library. Over a quarter of the total population are registered members of public libraries.

In addition to lending books, music scores and gramophone records, and providing special facilities for, among others, children, patients in hospitals and prisoners, public libraries engage in many other activities, such as play readings, lectures, film shows, music circles and co-operation in university extension education.

A committee set up by the Minister of Education to examine the structure of the public library service in England and Wales issued its report (known as the Roberts report) in 1959. Its principal recommendations were that every public library authority should have a statutory duty to provide an efficient library service; that the Minister of Education should have general supervisory responsibilities and be assisted by an advisory body in England and Wales; that non-county borough and urban district councils which cannot satisfy the Minister that they are providing an efficient library service should have their public library powers withdrawn; that greater co-operation

¹ This list provides only an arbitrary selection of some of the largest libraries. Unless otherwise stated these libraries are in London, where there are more than 500 libraries; and see also pp. 206, 221, 224 and 231.

² The total holding of all the libraries (college and special) of London University is about $3\frac{1}{2}$ million volumes.

between libraries should be encouraged; and that libraries should be provided with an increased staff of qualified and specialist librarians and, in many cases, with new or improved premises. In 1961 two Working Parties were appointed by the Minister to study the implications of these recommendations.

A feature of library services in Britain is the co-operation within the network of libraries which greatly increases the value of the service. Library co-operation is organised, in the first instance, through regional library bureaux, and is finally centralised in the National Central Library with its widespread system of outlier libraries (public, university and special), giving access to a total stock of some 100 million books and many thousand sets of periodicals. The Scottish Central Library carries out, in Scotland, functions similar to those of the National Central Library. Both Central Libraries are financed in part by Exchequer grants. In Northern Ireland, as yet, there is no regional library bureau but access to the stocks of the National Central Library, the Scottish Central Library and the Irish Central Library is available on application to the Belfast public libraries, Queen's University Library and the county libraries.

The two principal organisations to which librarians belong are the Library Association, with the affiliated Scottish Library Association, and the Association of Special Libraries and Information Bureaux (ASLIB) (see p. 224). The Library Association endeavours to unite librarians and governors of libraries throughout the world and through its many meetings, conferences, personal service and publications, including its official journal *The Library Association Record*, to provide for their general and specialised professional interests.

In addition to the services provided by public libraries, many bookshops maintain lending libraries for their customers.

Books

New books constitute the large majority of all books published annually in Britain. In 1961 nearly 1,100 British publishers issued 24,893 separate titles, of which 18,487 were new books and the rest reprints or new editions. A feature of recent years has been a great increase in the number of books of all kinds, both original works and new or reprinted editions, published with paper covers ('paper backs').¹

The above figures do not include Government publications by Her Majesty's Stationery Office, which is the largest publishing organisation in Britain; the great majority of books, however, are produced by some 300 of the principal commercial publishers, including the university presses, notably the Oxford University Press (including the Clarendon Press) and the Cambridge University Press.

Leading organisations representing the interests of those concerned with book production and distribution are the Publishers' Association, the Booksellers' Association, and the Society of Authors.

Literary and Philological Societies and Institutions

Societies and institutions concerned with the promotion of literature in its various forms include: the National Book League, which encourages the reading of and an interest in books, and which holds exhibitions, including annual exhibitions of book design, and arranges exhibitions of books in some overseas countries; the English Association, which aims at upholding the standard of English writing and speech; and the Royal Society of Literature, which is concerned with the advancement of

¹ For total sales and exports of books in 1961, see p. 323.

literature. The British Academy, for the Promotion of Historical, Philosophical and Philological Studies is the leading society in Britain dealing with humanistic studies. It receives a grant from the Treasury.

Interest in poetry is encouraged by the Poetry Society, the Apollo Society, the Company of Nine, and other societies which sponsor poetry readings and recitals. Poetry also plays an important part in various annual festivals, including the National Eisteddfod—the bardic festival held in Wales—the Stratford-upon-Avon Festival of Poetry, the Cheltenham Festival of Art and Literature, and 'Poetry at the Mermaid' week in London (launched by the Poetry Book Society in 1961).

Among the specialist societies are the Early English Text Society, the Bibliographical Society, the Harleian Society, the Saltire Society, and several societies devoted to particular authors, of which the largest is the Dickens Fellowship. There are also a number of clubs and societies, such as the Book Society and the Poetry Book Society, which exist to distribute selected new books to their members.

DRAMA

State patronage of the drama is expressed through the Arts Council (in Great Britain) and CEMA (in Northern Ireland), which grant subsidies to certain theatrical managements operating on a non-profit-distributing basis (i.e. using profits to finance future productions), provided that such managements have given evidence of serious aims and of consistently high standards of practical competence; and through the British Council, which is responsible for making the British theatre better known abroad by organising and sponsoring international tours by important companies, including the Old Vic Theatre Company and the Royal Shakespeare Theatre Company, and by sending overseas lecturers on drama and exhibitions of theatrical design or of books dealing with the British theatre. The Arts Council also operates a scheme for the promotion of new drama whereby guarantees may be offered to managements giving the first professional production of selected new plays; and promising authors may be awarded bursaries. A similar scheme has been started to encourage stage designers. Subsidies are also given for theatres to pass on to parties travelling to the theatre from outlying districts.

Professional Theatre

There are about 250 professional theatres in Britain. The centre of theatrical activity is in London, where there are some 40 principal theatres in the 'West End' and several more in the suburbs. With the exception of five theatres—Covent Garden, Sadler's Wells, the Old Vic, the Royal Court and the Mermaid—these are let to some 25 producing managements on a commercial basis for each production. The provincial theatres are served by productions touring either before or after London presentation, by companies specially formed for touring, and by local repertory companies. Since the second world war several theatres in London and about a hundred in the provinces have been closed. On the other hand, several new theatres have been opened in recent years, both in London and the provinces. The Mermaid Theatre, the first to be built in London for 25 years, was opened in 1959, as was the completely reconstructed Queen's Theatre; the Royalty Theatre opened in 1960 (but was used as a cinema in 1961); and another new London theatre, the Prince Charles, is being built. The first full-scale theatre to be built by a civic authority since 1939, the Belgrade Theatre, was opened in Coventry in 1958, and smaller theatres have been opened in Middlesbrough and Whitehaven (Cumberland). New civic theatres have been, or are being,

built in Nottingham, Croydon, Eastbourne and Torquay, and others are planned for Guildford, Newcastle-under-Lyme, Manchester, Birmingham and Leicester; and a festival theatre, with an open stage, opened in 1962 at Chichester (Sussex). Plans are in hand for the construction on the south bank of the Thames, in London, of a National Theatre, with which will be associated an opera house which will provide a new home for Sadler's Wells. Under the terms of the National Theatre Act, 1949, the Treasury will provide £1 million towards the capital cost of the National Theatre. Any additional expenditure on the two buildings, up to a limit of £1.3 million, will be met by the London County Council (LCC). Both the Treasury and the LCC will provide annual subventions towards the running costs of the two theatres.

In addition to managements which rent theatres, there are a number of companies which produce plays in theatres of their own. Among the best known of these organisations are the Old Vic Theatre Company in London and the Royal Shakespeare Company at Stratford-upon-Avon. In 1956 the English Stage Company was established at the Royal Court Theatre in London, where it presents contemporary plays. Theatre Workshop, formed in 1945, has since 1953 performed classical and contemporary plays at the Theatre Royal, Stratford, London (except for a period of a year from the end of 1961 when the theatre was leased to another company). Local repertory companies (many of which are assisted financially and otherwise by the Arts Council or, in Northern Ireland, by CEMA) may have the use of their own theatres (as in Bristol, Lincoln, Liverpool, Nottingham, Salisbury, Perth, Belfast and Birmingham) or may rent them from a local authority. A number of companies also exist especially to tour the smaller towns and villages, playing from one to several nights in each place and using any building which can be made suitable for the purpose. A large number of organisations present children's plays in London and the provinces. The National Youth Theatre, consisting of schoolboy actors, has its own centre in London but also presents Shakespearean productions in the provinces and abroad. The Open Air Theatre in Regent's Park, London, has presented many summer seasons of repertory, mainly plays of Shakespeare and other poetic drama. The Ulster Group Theatre in Belfast specialises in Ulster comedy; the Belfast Arts Theatre, specialising in international drama, has now become the Belfast Arts Theatre Trust and has moved to a new building where Irish plays will also be presented. Both these theatres are subsidised by CEMA. The Lyric Players Theatre, a non-profit-making organisation, under a board of trustees, presents Irish and international drama, and plans to build a small theatre in or near Belfast. Inevitably, the work of repertory companies varies in quality but, generally speaking, the standard of both production and acting is high: London managements watch their activities and may bring repertory company productions to the West End. Many of the leading dramatists, producers, designers, actors and actresses in the United Kingdom started their careers in repertory.

Theatre clubs for regular patrons are run in connection with some of the company-owned theatres. Where seats are sold only to theatre club members (for instance, the Arts Theatre, London), the plays are not subject to the provisions of the Theatres Act, 1843. This Act deals with the licensing of theatres and plays and requires all new plays to be approved by the Lord Chamberlain,¹ who may forbid the presentation of any play 'for the preservation of good manners, decorum, or of the public peace'. The number of plays for which a licence is refused amounts to under one per cent of the total submitted.

¹ The Lord Chamberlain, whose office dates from the fourteenth century, is the senior officer of the Royal Household.

Both in London and in the provinces, most managers and artists are members of one or another of the professional organisations which exist to maintain the standards of the professional theatre, to regulate the industry and to promote and safeguard the welfare of those who work in it. Organisations of this kind include the London Theatre Council, the Provincial Theatre Council, the Society of West End Managers, the Theatrical Managers' Association, the Council of Repertory Theatres, British Actors' Equity (the actors' trade union), and the League of Dramatists. The trade union of theatre staffs is the National Association of Theatrical and Kine Employees.

The Society for Theatre Research brings together those interested in the history and technique of the British theatre. The International Theatre Institute has a British centre in London. Its headquarters are in Paris and there are 40 member countries. The main purpose of the institute is to foster international goodwill and understanding by interchange of students, theatrical companies, theatre personnel and all theatrical information. The British centre's committee is composed of representatives of the Arts Council, British Council, League of British Dramatists, British Drama League, Conference of Repertory Theatres and representatives of the theatre.

The Arts Council is co-ordinating plans for the celebration in 1964 of the quarter-century of Shakespeare's birth.

Amateur Theatre

The amateur dramatic movement is widespread throughout the United Kingdom; there are thousands of amateur dramatic societies, with an active membership of some half a million. The movement is sponsored and fostered by local education authorities, by other public bodies, and by five special organisations—the British Drama League, the Standing Conference of Drama Associations, the Scottish Community Drama Association, the Ulster Drama League and the Association of Ulster Drama Festivals. Amateur companies which stage productions in their own theatres (for instance, the Maddermarket Theatre in Norwich) belong to the Little Theatre Guild of Great Britain.

The British Drama League, founded in 1919, operates on a basis of affiliation and individual membership. Its services include the arrangement of courses, lectures and competitions in dramatic work; the provision of a library, which has the largest collection in Britain of plays and books on the theatre, and an information bureau; and advice on such matters as play-writing, production, stage management and the organisation of drama festivals. The work of the Standing Conference is mainly that of co-ordination between the various bodies concerned in the amateur dramatic movement. Functions similar to those of the league and the conference in England and Wales are fulfilled in Scotland by the Scottish Community Drama Association, which receives some financial assistance from the Scottish Education Department.

The Universities of Oxford and Cambridge have famous dramatic societies, and there are drama clubs and societies in many other universities and colleges.

Dramatic Training

Dramatic training is provided mainly in the dramatic schools and institutions established throughout the United Kingdom. Among the most important are the Royal Academy of Dramatic Art (which is grant-aided by the Treasury, and which provides a two-year course in all branches of stage work), the Guildhall School of Music and Drama, the Central School of Speech Training and Dramatic Art, the Rose Bruford School and the London Academy of Music and Dramatic Art, all of which are in or near London; and the Old Vic School in Bristol.

Some form of education in drama is also provided in many schools and youth clubs in Britain, and a varying degree of recognition is given to the subject in the universities. The University of London offers a Diploma in Dramatic Art; and Bristol University has created a department of drama offering a course which an arts student may take as part of a general degree course. From October 1962 Manchester University is offering courses in drama for Honours or General Arts degree students, and also a diploma course in Theatrecraft (embracing sound and television broadcasting). In 1959 Bristol inaugurated the International Festival of University Theatre now held annually in Britain.

The popularity of plays on radio and television has provided increased opportunities not only for established artists but also, particularly in regional studios, for young actors and actresses.

FILMS

Although cinema attendance has been declining in recent years (attendances at cinemas in the United Kingdom dropped from 1,101 million in 1956 to 460 million in 1961) and the number of cinemas in Great Britain decreased by about 1,550 between 1956 and 1961, there were, at the beginning of 1962, about 2,720 cinemas in Great Britain (with a total of about 2.85 million seats).

About 10 per cent of British first feature films are made, and between 25 and 35 per cent are distributed, by the two large amalgams, the Rank Organisation and the Associated British Picture Corporation, which have companies for production, distribution and exhibition. Most producers who are independent of either group make films in association with other film distributors. There are numerous companies (many of them small) which produce short films.

Cinematograph films were first shown to the public in Britain in 1896, and within ten years Britain was in the forefront of film production. This early ascendancy did not survive the impact of the first world war and, since 1914, British films have had to contend at home as well as abroad with keen American competition.

During the second world war the British cinema re-emerged with new vitality and began again to exert an important influence by the production of many notable feature films depicting Britain's ordeals and achievements. These films were based on the documentary technique which had been developed in Britain from the early 1930s. British feature films in the post-war years were influenced by this trend, and realistic treatment became a characteristic of British feature production, both in dramatic films and in the light-hearted satirical comedies that won international acclaim.

In recent years this talent for realism has been successfully employed in feature films reflecting current social problems or based on war experiences. London is one of the most important centres for the making of films for international markets and export earnings are an important part of total earnings. British films, actors and creative and technical talent are appreciated abroad as well as at home and frequently achieve success at international film events. The British Film Producers Association and the Federation of British Film Makers are the two trade associations to which many feature film producers belong.

The documentary tradition in short film production in Britain goes back to 1929, when a group of directors began making factual films of a distinctive and imaginative kind on behalf of the Government, and later for commercial organisations. The war years saw a big expansion in this field and, since then, British documentary technicians have continued to produce high quality factual films which have won numerous international awards. The Association of Specialised Film Producers, the trade

association of documentary and specialised film makers, has over 70 members, and there are many other, non-member, companies. An interesting recent development has been the attempt to re-interpret the documentary tradition in contemporary terms by a group of young technicians—the Free Cinema movement—and by the television film units of the British Broadcasting Corporation and the Independent Television Authority contractors.

The Government has continued to sponsor a wide range of information films and film material. These are produced through the film, television and newsreel services of the Central Office of Information (COI), which commissions their production by private companies and by the television and newsreel organisations. Documentary films, television programmes and newsreels are produced to inform audiences overseas about British life and achievement. These, together with other films acquired from private industry and public bodies, are distributed throughout the world, in English and many foreign languages, by British Information Services.

The films produced by the COI for Government departments have included many specialised films on science, agriculture, health and industry. Films for industry, produced by the Government, the British Productivity Council and private firms, have helped to increase productivity; to the same end, many hundreds of industrial films from other countries have been evaluated, and the best of them made available to industrial audiences through the COI's Central Film Library¹ and other agencies.

The Films of Scotland Committee, set up in 1936 and revived in 1954 by the Scottish Council (Development and Industry) in consultation with the Secretary of State for Scotland, promotes the production of Scottish films covering the industries and cultural traditions of Scotland.

Films from abroad made in languages other than English often draw large audiences in London and a few other large cities, but are rarely shown throughout the country.

The development of the film as an art is promoted by the British Film Institute, founded in 1933, which is financed partly by an Exchequer grant. The Institute encourages the making and showing of good films and helps the public to appreciate them. Similar work is undertaken in Scotland by the Scottish Film Council, which is also financed in part by an Exchequer grant. The British Film Institute administers the National Film Theatre in London and the National Film Archive, runs an annual summer school, and maintains a film library from which films may be hired, a library of books on the film and an information service. The Institute also makes grants to the Scientific Film Association, the University Film Council and the Society for Education in Film and Television, and administers a fund for the production of experimental films.

The National Film Archive contains over 7,000 films, excluding newsreels and other miscellaneous items, besides scripts, art designs, posters and 464,000 photographic stills, selected to illustrate the history and the art of the film and as significant social and historical records.

The National Film Theatre, on the south bank of the Thames, in London, shows films of outstanding historical, artistic or technical interest; it holds a unique position as a cinema offering regular programmes unrestricted by commercial considerations or by the age or nationality of the films shown.

The Society of Film and Television Arts, formed in 1958 by the amalgamation of the British Film Academy and the Guild of Television Producers and Directors, has

¹ The Central Film Library also makes available on hire to schools, colleges and other institutions films on many specialised subjects.

as its aim to improve the standard of film and television production and to stimulate public appreciation of the arts.

Assistance to British Film Producers

The art of film production is a costly one which depends upon a commercially prosperous industry for its development and needs adequate financial backing combined with freedom for the film-maker to experiment and to express his own ideas. There is no State-owned film production unit in Britain, but the National Film Finance Corporation, a statutory body set up in 1949, is empowered to lend money for film production. Its members—a chairman, a managing director and three to five others—are appointed by the Board of Trade. Its funds (limited by statute to £8 million) are provided up to £6 million by advances from the Board of Trade; the remaining £2 million may be borrowed from non-Governmental sources. The Corporation is financially concerned with about half the first feature films being made in British studios.

There is a levy on cinema admissions to provide a film production fund. The money so raised is paid out as a percentage of a film's takings, so that the more successful a film is at the box-office, the more it receives from the fund. Started by the industry in 1950 on a voluntary basis, the scheme became statutory under the Cinematograph Films Act, 1957, which gave the President of the Board of Trade powers to make regulations governing the collection, by the Board of Customs and Excise, of a levy from exhibitors, and the distribution of the proceeds for the benefit of British film production. The British Film Fund Agency undertakes the distribution.

To help British films meet the keen American competition, legislation passed in 1927 introduced the quota system (continued by subsequent legislation), under which a certain proportion of British films must be shown in British cinemas each year. The proportion is fixed by the Board of Trade annually after consultation with the Cinematograph Films Council, any change being effected by statutory instrument approved by both Houses of Parliament. For first feature films it has stood at 30 per cent since 1950.

Cinema Licensing and Film Censorship

The State takes no part in the censorship of films in Britain, but, by virtue of their power to grant licences, the local licensing authorities act as the final arbiters of films proposed for showing in their areas. There are over 700 licensing authorities; they are local authorities or, in some areas, magistrates. The Cinematograph Act of 1909 required, for reasons of safety, that inflammable films should be shown only on premises licensed for the purpose; it was subsequently established that licensing authorities had the right to supervise the character of the films exhibited. In judging the suitability of films the authorities normally rely on the judgment of an independent body, the British Board of Film Censors, to which are submitted all films (other than newsreels) intended for public showing.

The British Board of Film Censors was set up in 1912 on the initiative of the cinema industry, which wished to ensure that a proper standard was maintained in the films offered to the public. It consists of a president, a secretary, and five examiners (including two women) appointed by the president who is elected by a trade committee and is usually a man prominent in public life.

The Board, which does not use any written code of censorship, may require cuts to be made before it will grant a certificate to a film; very rarely, it will refuse a certificate. Films passed by the Board are placed in one of three categories: 'U'

(suitable for universal showing); 'A' (more suitable for adults than children) and 'X' (suitable only for adults). A child or young person under 16 years of age may be admitted to a cinema showing an 'A' film only if accompanied by a responsible adult, and may not be admitted on any condition if an 'X' film is being shown.

Children and the Cinema

The Cinematograph Act, 1952, which came into force in January 1956, extended the scope of the 1909 Act and provided for the making of regulations by the Home Secretary to protect the health and welfare of children attending film shows. Cinemas which give children's shows require a special licence from the licensing authority, which may impose special conditions. The British Board of Film Censors publishes at intervals a list of films particularly suitable for children and for exhibition at children's matinées. One of the women examiners is appointed for her special knowledge of children's needs.

Children's cinema clubs, providing special programmes on Saturday mornings, are widely organised by the cinema groups and have become very popular. An important contribution to these programmes is made by the Children's Film Foundation, which produces and distributes entertainment films specially designed for children. The foundation is a non-profit-making body set up by the British film industry in 1951 and under the Cinematograph Films Act, 1957, it receives grants from the British Film Fund Agency.

MUSIC, OPERA AND BALLET

In Britain today, music in all its forms is drawing large audiences; and music festivals, orchestral concerts, choral singing, brass bands, opera and ballet are important features of British cultural life.

Tours abroad by British orchestras, soloists, and opera and ballet companies are sometimes assisted financially by the British Council, which sponsors some recordings of works by British composers, and maintains libraries of British music (scores and records) in about 70 countries overseas. At the Council's London headquarters a reference library of records, scores, and books on music is maintained, and musicians from abroad are sometimes invited to Britain as the Council's guests, to gain first-hand experience of British music-making.

The National Music Council, representative of every aspect of British musical activity, is affiliated to the International Music Council and UNESCO.

Music

Seasons of orchestral concerts are promoted every year in many of the large towns and cities of Britain, some of which have well-known concert halls. In London, the principal concert halls are the Royal Festival Hall on the south bank of the Thames, opened in 1951 and used for both orchestral concerts and recitals; the Royal Albert Hall, Kensington, where mainly orchestral concerts, including the annual summer season of Promenade Concerts are given; and the Wigmore Hall, which is the principal recital centre. In 1961 the London County Council announced plans for two small concert halls to be built on the south bank of the Thames by 1964.

Among the leading British orchestras are the London Symphony, the BBC Symphony, the London Philharmonic, the Royal Philharmonic, the Philharmonia, the Hallé (Manchester), the Royal Liverpool Philharmonic, the City of Birmingham Symphony, the Bournemouth Symphony, the Northern Sinfonia (Newcastle-upon-Tyne), the BBC Northern, the Scottish National and the BBC Scottish. There are

also the specialised string and chamber orchestras such as the Philomusica of London and the London Mozart Players; and a number of new orchestras which have been formed during the past few years. Many of these receive financial aid from the Arts Council and local authorities to help with the cost of maintaining ensembles, of presenting new or unfamiliar works, and of improving standards generally. The City of Belfast Orchestra is financed jointly by the Belfast Corporation and the Council for the Encouragement of Music and the Arts (CEMA).

The principal choral societies in Britain are the Royal Choral, the BBC Choral, the Huddersfield Choral, the Hallé Choir, the Liverpool Philharmonic Choir, the London Philharmonic Choir, the Philharmonia Chorus, the Bach Choir, the Royal Edinburgh Choral Union and the Belfast Philharmonic Society. These and many other choral societies are associated with famous orchestras in major choral works; most of them, together with hundreds of similar choral and orchestral societies and music clubs, are affiliated to the National Federation of Music Societies, through which they are supported with funds provided by the Arts Council. Membership of the National Federation has risen to over 800 societies. Among societies which specialise in encouraging the performance of the work of living musicians are the Society for the Promotion of New Music, the Music Section of the Institute of Contemporary Arts and Macnaghten Concerts.

Music festivals in Britain, originating with the Three Choirs Festival held annually in Gloucester, Worcester or Hereford in rotation, have been in existence for over 200 years. The festival idea has developed considerably in recent years, and festivals of music and other arts are now held annually in many cities and towns throughout the United Kingdom. The famous Edinburgh International Festival of Music and Drama lasts three weeks and attracts many thousands of visitors; other festivals such as at King's Lynn, last a week or less. Among the better known are the Royal National Eisteddfod of Wales; the Llangollen International Eisteddfod; the National Gaelic Mod, held at a different place in Scotland each year; the Cheltenham Festival, largely devoted to contemporary British music; the Aldeburgh Festival; the Bath Festival; and the Leeds and Norwich Festivals of choral music, which are held on a triennial basis. An annual international festival of folk song and dancing is held by the English Folk Dance and Song Society.

Interest in amateur music-making is increasing. It is encouraged by the work of County Music Committees,¹ which are aided by the Carnegie United Kingdom Trust and united in the Standing Conference for Amateur Music. The Rural Music Schools Association is concerned with music-making by amateurs in country districts; it brings together professional musicians, teachers, administrators and amateurs.

Professional organisations which look after the interests of music and musicians, include the Musicians' Union, the Incorporated Society of Musicians, the Composers' Guild, and the Songwriters' Guild.

Specialised education in music is given at colleges of music, of which the most prominent are the Royal Academy of Music, and the Royal College of Music in London, the Royal Manchester College, and the Royal Scottish Academy in Glasgow, all of which receive grants-in-aid. There are also the Trinity College of Music and the Guildhall School of Music and Drama, both in London, and the School of Music in Birmingham. Youth orchestras are strongly encouraged, and children's concerts, given by symphony orchestras directed by prominent conductors, are a regular feature

¹ Some of these are voluntary committees and some are local education authority sub-committees.

of the country's musical activities and have helped to develop among the youth of the community an appreciation of the world's greatest music. The National Youth Orchestra of Great Britain and the National Youth Orchestra of Wales, made up of the most promising members of school orchestras, are noted for their high standard of performance, and so is the London Schools' Symphony Orchestra. A 'Youth and Music' organisation, affiliated to the continental 'Jeunesses Musicales', was established in 1954 to encourage musical education and performances for young people. The Students' Orchestra of Great Britain, specially formed in 1958, 1959 and 1961 from music students for performances abroad, has achieved great successes.

In schools, more children are learning to play musical instruments; and about 125,200 candidates a year (children and other students) take the examinations of the Associated Board of the Royal Schools of Music, the largest proportion (about 80,700) choosing the piano as their instrument.

The increase in musical appreciation among the general public during recent years is shown not only by the size of the audiences for concerts and for broadcast music, but also by the fact that of some 80 million gramophone record units sold during 1961, the proportion of classical music was about one-quarter. The National Federation of Gramophone Societies has some 370 affiliated societies.

The City of Westminster houses the Central Music Library in its Buckingham Palace Road library building, and many other public libraries have collections of music that can be borrowed; some of them also lend out gramophone records.

Opera and Ballet

Regular seasons of opera and ballet are given at the Royal Opera House, Covent Garden, London, leased by the Government¹ to the Covent Garden Opera Trust, which was formed in 1944 to make the famous opera house the home of a national opera and ballet, and which receives a Government grant through the Arts Council. The Royal Opera House has its own resident opera company and ballet company which give performances both in London and elsewhere. The opera company, which numbers about 200 and has a permanent orchestra, makes an annual tour of provincial centres. The ballet company, incorporated in 1957 with the Sadler's Wells Theatre Ballet and the Sadler's Wells School to form the Royal Ballet, has a high international reputation gained in many overseas tours.

Seasons of opera and ballet are also given at the Sadler's Wells Theatre in London; with two permanent opera companies, Sadler's Wells provides a full London season and opera and operetta for 42 weeks in other centres.

At Glyndebourne, in Sussex, an opera season, for which an international cast is specially assembled, is held every summer. Other opera companies include the English Opera Group, formed in 1947, and noted for its performances of operas by Benjamin Britten; the New Opera Company, formed in 1957 by members of the Cambridge Opera Group to produce new operas in London and give opportunities to promising amateurs and young professionals; the Handel Opera Society; the Intimate Opera Company, which performs works for very small casts in any hall available; and the Welsh National Opera Company. Opera in Northern Ireland is promoted by the Grand Opera Society of Northern Ireland and the Studio Opera Group, both receiving a subsidy from CEMA. The Arts Council manages two small operatic groups (Opera for All) which specialise in introducing opera to audiences in small towns who hitherto

¹ The Ministry of Public Building and Works acquired a 42-year lease from Covent Garden Properties Limited in 1949.

have been unfamiliar with it. There are also a number of amateur opera clubs in London and the provinces, in Glasgow and Edinburgh, in Northern Ireland and in universities.

Among the ballet companies are the Ballet Rambert, Britain's oldest ballet company, which has discovered many distinguished dancers and choreographers, London's Festival Ballet and an important new group, Western Theatre Ballet, that includes a large proportion of contemporary works in its repertoire. The work of the Irish Ballet Company in Northern Ireland, which is sponsored by CEMA, combines traditional music, dancing and mime. The Royal Ballet, the Arts Educational, and the Rambert Ballet Training Schools and the Royal Academy of Dancing are among the teaching institutions which have played an important part in raising British ballet to its present high standard.

THE NATIONAL ECONOMY

BACKGROUND

The United Kingdom ranks about 75th in size among the countries of the world, with about 0.18 per cent of the world's land area. In population, with slightly under 2 per cent of the world's inhabitants, it ranks tenth. In density of population it is fourth: of the major countries, only Japan, Belgium and the Netherlands are more crowded; and there are nine times as many people to the square mile in the United Kingdom as in the United States. In world trade, it ranks second, accounting for about one-tenth of the total. It takes about a fifth of the world's exports of primary products, and provides about one-sixth of the world's exports of manufactured goods.

The United Kingdom, from its own soil, provides only half of the food it needs, and—apart from coal and low-grade iron ore—it has few natural resources; thus it is the world's largest importer of such products as wheat, meat, butter, fodder grains, citrus fruits, tea, tobacco, wool, and hard timber. In return, it is one of the world's largest exporters of aircraft, locomotives, motor vehicles, electrical equipment, chemicals, textiles and most types of machinery. No other country has such a small proportion of the working population engaged in agriculture (only slightly more than 4 per cent).

The United Kingdom is also the central banker of the sterling area, an area with a quarter of the world's population. Many countries outside the sterling area use sterling in their international transactions, and it is the currency in which about one-third of the world's trade is conducted.

The Economy before 1939

During the nineteenth century Britain secured a leading position as world manufacturer, merchant, carrier, banker, and investor and so was able to support a rapidly increasing population at a rising standard of living. It was Britain's commerce in cotton goods, above all, which gave it the leading position in world trade; cotton cloth provided 40 per cent of its exports in 1851. It was in this period also that the country became so largely dependent on imports of foodstuffs and raw materials.

During the period from 1870 to 1890 British industrial expansion had the clearest lead over that of other countries. Between 1890 and 1914 growing industrial competition from Europe and North America began to make itself felt, but its effects on Britain's staple export industries, particularly cotton textiles and coal, were offset by the general rise in world trade, by the continued demand for British textiles from India and other eastern countries, and by the continued high level of overseas investment.

The new problems confronting British industry and trade in the twentieth century became apparent after the first world war. Textiles from India and Japan, where

labour was cheaper, established themselves firmly in the large eastern markets, to a great extent replacing the more expensive and often higher quality British products. The extension of the world demand for coal was slowed down by the increasing use of oil, while coal from the newer European mines competed keenly with British coal.

In the old-established branches of the vehicles and engineering group of industries (for instance, locomotives, ships and textile machinery) world demand fell away after a brief post-war boom, and Britain failed at first to gain a compensating share of the expanding world trade in the new types of engineering products (for example, cars and electrical goods). Most countries were tending towards self-sufficiency, and some sought deliberately to protect nascent and even established industries by tariffs and (later) quotas and exchange restrictions.

Income from overseas investments and a substantial improvement in the terms of trade (the price of exports relative to the price of imports) cushioned the effect of a fall in the volume of exports, and imports remained high. The loss of export markets led, however, to a contraction of Britain's staple industries—coal, cotton, iron and steel, and the older branches of engineering. The result was heavy unemployment, the general rate of which averaged 14 per cent of the working population in the years 1921-39, reaching a peak of 22 per cent in 1932, when the slump in world trade was at its worst. In districts relying mainly on one or other of the staple industries, the rate was much higher.

After 1932 an improvement in the levels of production and employment took place, stimulated by an increase in home investment which was aided by the policy of cheap money, by some revival in world trade and, after 1935, by the armament programme. The decade saw a strong expansion in the vehicles, electrical, chemicals and aircraft industries, while the construction of 3 million houses brought about a large growth in the building and ancillary industries. By 1937 average real income per head was about 14 per cent higher than in 1929.

Effects of the Second World War

The second world war is estimated to have run down British domestic capital by about £3,000 million, through shipping losses, bomb damage, and arrears of industrial maintenance and replacements. It also resulted in considerable alterations in Britain's financial and trading position. These included the sale of £1,000 million worth of overseas investments, nearly half in North America, and the accumulation of new external debts of £3,000 million. Exports had fallen by 1944 as a result of the war effort to less than one-third of their 1938 volume while there had been a sharp adverse movement in the terms of trade as a result of the shortage of imported raw materials. On the credit side, there was the large volume of fixed investment in the munitions industries, a greatly increased skilled labour force in the engineering trades, and a prosperous and well-equipped agricultural industry.

Post-war Developments

Since the war, the United Kingdom has experienced, with few interruptions, a steady growth in output of goods and services and a high level of employment. Invention and technological advance and shifts in world demand have helped to produce some radical changes in the British industrial scene. Industries in which new techniques have predominated, notably the electrical engineering, aircraft, motor and chemicals industries, and new branches of machinery construction, are contributing a significantly larger share of the total output and of total exports and providing wider employment opportunities for an increasingly skilled labour force. Expenditure

on industrial and scientific research has increased steadily and facilities for technological education have been greatly enlarged.

At the same time, the United Kingdom has had to deal with some persistent economic problems; in particular, to fulfil its overseas obligations and to maintain its traditional role in world commerce and finance it has needed to achieve and maintain a substantial balance of payments surplus. In the initial post-war years Marshall Aid and loans from the United States and Canada helped to overcome the serious deficit in the balance of payments pending the full recovery of exports. Exports of both goods and services have maintained the upward trend, but in some years the rate of increase has been insufficient to pay for a rising volume of imports (almost all restrictions on imports having been removed) and to provide for overseas investment and economic assistance to developing countries. Nevertheless on external capital account as a whole the United Kingdom is again a net creditor country.

The persistent rise in prices, a problem shared with most other countries, has not yet been fully checked. It stems partly from an excessive pressure of demand—exports, investment at home and abroad, personal consumption, defence and other public expenditure both at home and overseas—on the nation's resources, and partly from the fact that money incomes have risen faster than production, thus raising costs. The Government has not only taken strong short-term measures to curb inflationary tendencies, but is also increasingly concerned with the working out of policies to relate increases in incomes to the rate of economic growth and to evolve machinery for longer-term planning of the economy.

THE STRUCTURE OF THE ECONOMY

The following sections sketch briefly the salient features of the national income and expenditure of the United Kingdom in recent years. The sources of Tables 8 to 12 are *National Income and Expenditure, 1961*, and *Economic Survey, 1962, Cmnd. 1678*.

Output and Employment

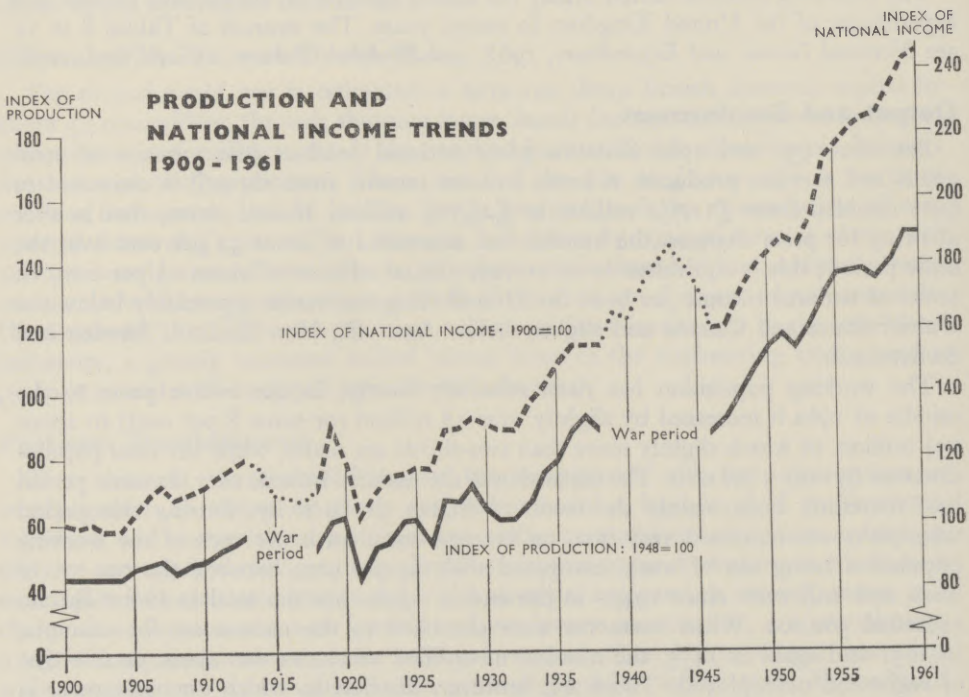
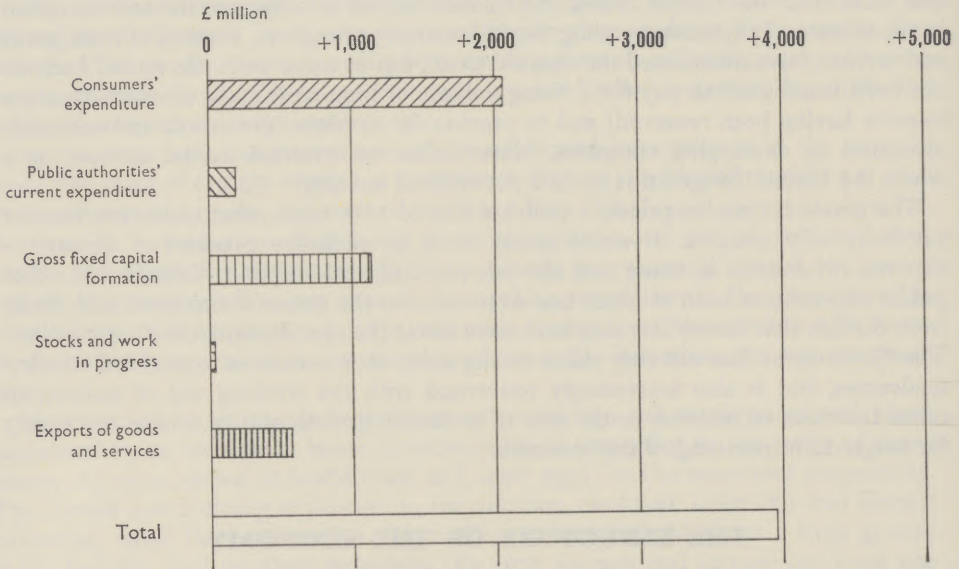
Between 1950 and 1961 Britain's gross national product (the measure of total goods and services produced at home and net income from abroad) is estimated to have doubled from £11,752 million to £23,703 million. In real terms, that is after allowing for price changes, the increase has amounted to about 32 per cent over the same period; this is equivalent to an average annual advance of about $2\frac{1}{2}$ per cent. In terms of national income per head the United Kingdom ranks appreciably below the United States and Canada and slightly below Australia, New Zealand, Sweden and Switzerland.

The working population has risen relatively slowly; in the twelve years to the middle of 1962 it increased by slightly over $1\frac{3}{4}$ million (or some 8 per cent) to about $25\frac{1}{4}$ million, of which slightly more than two-thirds are males, while the total population rose by only 5 per cent. The expansion of the national income over the same period has, therefore, been mainly the result of higher productivity. During this period unemployment remained very low, on average less than 2 per cent of the working population being out of work, compared with 14 per cent between the two world wars, and only once since 1947—at the end of 1958—has the total in Great Britain exceeded 500,000. When resources were stretched to the utmost as, for example, in 1951 and again in 1955, the number of unfilled vacancies was about double that of registered unemployed. There are, however, districts in which unemployment is

persistently higher than average, notably in Northern Ireland and Scotland. As far as possible, new industrial development is being steered towards these areas.

CHANGES IN NATIONAL EXPENDITURE

1961 compared with 1956 at average 1958 prices



During the 1950s there was an average annual increase of about 2 per cent in the output of goods and services per head of the labour force, the chief factor in the growth of the gross national product. There is some evidence that the rate was a little higher towards the end of the decade. Industrial investment has been at a high level for several years, stimulated by measures such as special investment allowances, and capacity for a further increase in productivity is readily available. While considerable fluctuations in demand may be encountered from time to time, and the Government may therefore be obliged during such periods to influence the level of demand either upwards or downwards, it is committed to a policy of maintaining full employment.

Table 8 shows the distribution of total supplies of goods and services since 1950, at current prices, divided between consumers, public authorities, investment and exports, while the diagrams on page 248 show the changes in national expenditure in 1961 compared with 1956, at average 1958 prices, and production and national income trends since 1900.

TABLE 8
DISTRIBUTION OF TOTAL SUPPLIES OF GOODS AND SERVICES

Percentages

	1950	1957	1960	1961
Consumers' expenditure	58.8	54.5	54.3	54.0
Public authorities' current expenditure ..	12.9	13.5	13.7	14.3
Gross fixed capital formation	10.6	12.7	13.4	14.1
Investment in stocks	-1.3	1.1	1.9	0.9
Export of goods and services	19.0	18.2	16.7	16.7
TOTAL FINAL EXPENDITURE	100.0	100.0	100.0	100.0

Manufacturing industry contributes about 36½ per cent to the total output of goods and services, and together with mining and quarrying, construction and public utilities (gas, electricity and water) makes up just under half the total; agriculture, forestry and fisheries account for slightly over 4 per cent; transport and communications, together with the distributive trades, for more than 20 per cent. The remainder, just over one-quarter of total output, includes public administration, education, health and financial services. Over the past decade the only marked change has been the decline in the proportion contributed by agriculture (though agricultural output is actually rising).

Industrial production as a whole has risen over the eleven years by about two-fifths, and in the seven years from 1954 to 1961 by about one-quarter in manufacturing industry. Rising output has made possible an appreciable advance in living standards, the raising of investment progressively to the present record levels, and a notable but not fully adequate expansion in exports.

Defence expenditure has made heavy calls upon resources at certain periods; in peak years in the early 1950s it absorbed over 10 per cent of the gross national product. In real terms, between 1950 and 1961 gross fixed capital formation rose by 80 per cent, consumption by 27 per cent, and public authorities' current expenditure by about 25 per cent. Public authorities' current expenditure, after remaining almost unchanged since 1952, went up by about 5½ per cent in 1961. Compared with 1954, gross fixed capital formation in 1961 was up by nearly half as much again.

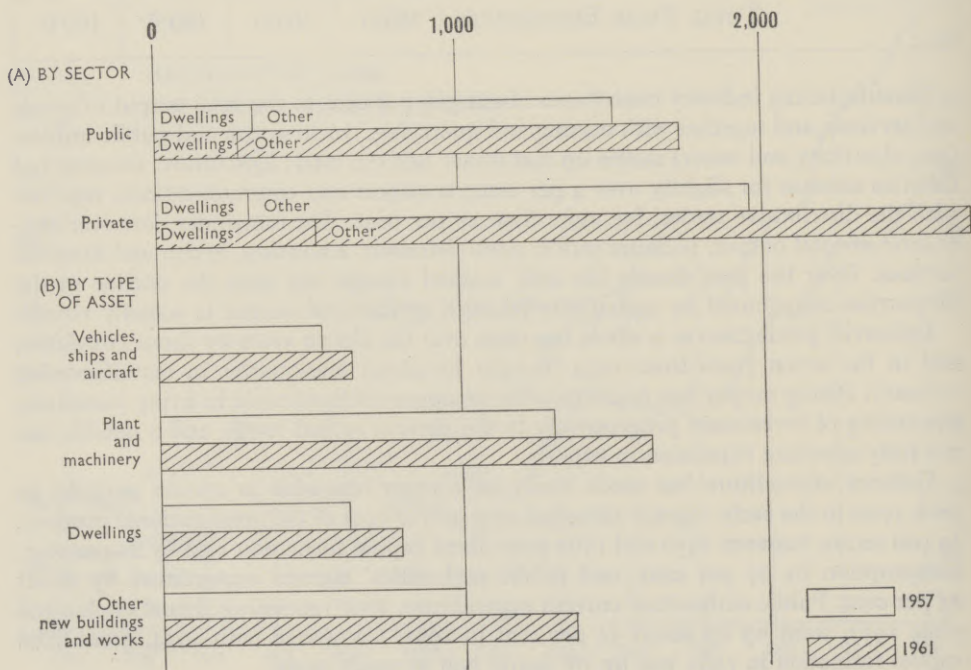
Investment

Since the end of the war, and particularly since 1953, gross fixed investment has risen markedly. In 1938 fixed investment in the United Kingdom was about 12½ per cent of the gross national product; in 1948, 14 per cent. From 1957 to 1959 it averaged over 17 per cent, rising to 18½ per cent in 1960 and 19 per cent in 1961. In some years, such as 1951 and 1960, the level of economic activity has been influenced by a high and rising investment in stocks and in work in progress. Up to 1953 investment in oil refineries, chemicals and iron and steel, coal mining, and in the housing programmes of local authorities increased particularly rapidly. Since 1954 industrial development as a whole, and especially in manufacturing, transport and communications, and distribution, has expanded greatly, while investment in housing tended to decline until 1958, but has since risen by about one-third. In 1961 the volume of fixed capital formation by manufacturing industry was about one-third higher than in 1957. It has been at higher than average levels in the food, drink and tobacco, chemicals, motor vehicles and electronics industries.

More than 40 per cent of total fixed investment is carried out by the central Government, the local authorities and the public corporations, the last accounting for half of public investment, and the central Government for about one-tenth. Each year the Government considers proposals for capital expenditure in the following financial year put forward by the authorities concerned, and in the light of the overall position of the economy approves the total level. Public investment in 1961 amounted to about £1,800 million, an increase of £134 million over 1960, reflecting increased expenditures on education, hospitals, roads, electricity generation and other services. It is expected to be about 5 per cent higher in real terms in 1962. The diagram below shows the

PUBLIC AND PRIVATE FIXED INVESTMENT 1957 AND 1961

(£ million at 1958 prices)



division between public and private investment and the pattern of investment according to type of asset in 1957 and 1961. Table 9 shows the division into industrial groups of gross fixed investment in 1957 and 1961.

TABLE 9
GROSS FIXED INVESTMENT
(At 1958 prices)

Industrial Groups	£ million		Index Numbers of Volume (1957 = 100)
	1957	1961 (Preliminary)	1961
Dwellings	623	795	128
Manufacturing	961	1,227	128
Gas, electricity and water ..	367	438	119
Transport and communications ..	481	500	104
Distribution and other services (a)	595	851	143
Other (including roads)	439	609	139
TOTALS	3,466	4,420	128

(a) Includes road goods transport.

Savings and the Financing of Investment

The marked growth of investment since 1954 has been greatly facilitated by a substantial increase in personal savings (see Table 10).

Personal savings in 1961 reached a record total, provisionally estimated at about £2,070 million net, nearly £500 million more than in 1960 and more than three times as great as in 1955; it is equivalent to about two-fifths of total savings. In the period

TABLE 10
SAVINGS IN THE UNITED KINGDOM (a) £ million

	1957-59 (Average)	1960	1961 (Preliminary)
Persons	946	1,594	2,072
Companies	2,016	2,418	2,026
Public corporations	171	311	378
Central Government and local authorities	712	432	454
TOTALS	3,845	4,755	4,930

(a) Gross saving, i.e. before providing for depreciation and stock appreciation and for tax, dividend and interest reserves.

1948-51, on average only about 2 per cent of disposable personal income was saved; by 1957 the proportion had risen to nearly 6½ per cent and in 1961 it slightly exceeded 10 per cent.

The rise in personal savings has taken various forms. Over one-third has consisted of life assurance premiums and other forms of contractual savings, such as super-annuation funds. The National Savings movement (which in 1959 reached the record peace-time level of £390 million) and building societies have also absorbed considerable sums of personal savings. Since 1959, however, the most significant change has been a faster growth in personal deposits in clearing banks.

The most important contribution to savings up to 1961 came from companies, which provided about half the total, but the fall in company profits and other factors in that year led to a marked drop in savings. The proportion of gross trading profits of companies allocated to savings has tended to fall since 1959 to under half the total, with an increasing share being taken by dividends and interest payments.

Public Authorities

Expenditure by the central Government, local authorities and the National Insurance funds has expanded appreciably in comparison with pre-war years, although from the end of the war until about 1957 less rapidly than the gross national product. The

TABLE 11
COMBINED REVENUE ACCOUNTS OF PUBLIC AUTHORITIES IN 1956 AND 1961

Revenue	1956			1961			Expenditure	1956			1961		
	£ million	£ million	Per cent	£ million	£ million	Per cent		£ million	£ million	Per cent	£ million	£ million	Per cent
Taxes on income and capital ..	2,530	3,337	37				Central Government current expenditure on goods and services:						
Taxes on expenditure — alcohol, tobacco, purchase tax, etc.	2,275	2,800	31				Military defence	1,621	1,735	19½			
National insurance and health contributions	642	1,071	12				Health services ..	549	801	9			
Rates	556	824	9				Other	346	564	6			
Rent, dividends, interest, etc. ..	543	921	10				Local authorities' current expenditure on goods and services	973	1,496	16½			
Gross trading income	122	92	1				Subsidies	367	589	6½			
Other	26	—	—				Grants and National Insurance benefits	1,259	1,911	21			
							Interest on national and local debt ..	914	1,238	14			
							Transfers to capital account	113	110	1			
							Surplus	552	601	6½			
TOTALS	6,694	9,045	100				TOTALS	6,694	9,045	100			

main factors in this change have been the growth of the social services and of defence expenditure. The proportion absorbed by defence fell from about 27 per cent of the expenditure of the public authorities in 1953 to about 20 per cent in 1959 and has remained at about that ratio. Government current expenditure (excluding transactions of the National Insurance funds) dropped from 30 per cent of the gross national product in 1948 to 25 per cent in 1960. It rose to 26 per cent in 1961 when the rise in Government expenditure was particularly large.

The expansion of the national income has enabled central Government tax revenue to increase by over one-quarter since 1956, despite several reductions in taxation rates. Revenue from taxes on expenditure, and especially from purchase tax on cars and durable goods, rose slightly faster from 1958 to 1960 than that from taxes on income, partly because of income tax reductions. Increases in the rates of contributions for the national insurance and health schemes have increased revenues from £642 million in 1956 to £1,071 million in 1961. Revenues from rates imposed by local authorities rose by one-third in the four years from 1957 to 1961.

Table 11 shows how the public authorities collected and spent their revenue, including national insurance and health contributions, in 1956 and 1961.

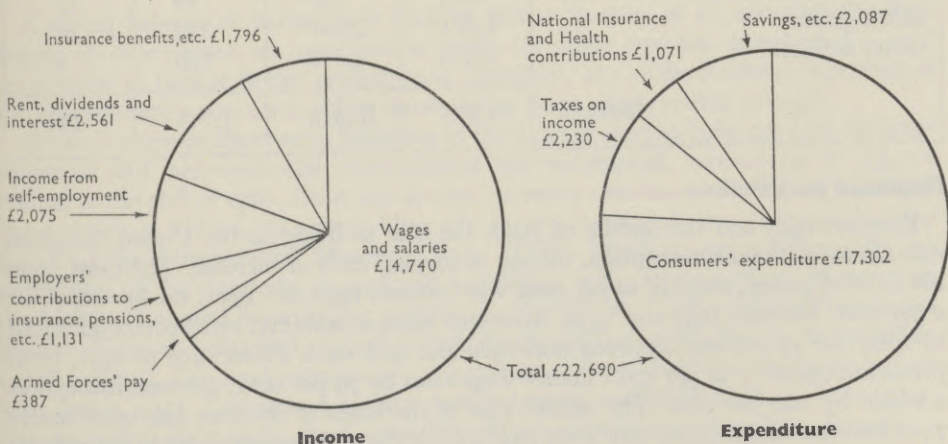
Personal Incomes and Consumer Expenditure

Incomes from employment in 1961 totalled £16,258 million, having increased by about one-third in five years, and accounted for slightly over 71½ per cent of total personal incomes (against 59½ per cent in 1938); for rent dividends and interest the corresponding percentages were 11½ and 22½. The diagram below shows the composition of personal incomes and expenditure in 1961.

After payment of income tax and surtax, income is fairly evenly distributed. In 1960 of a total of 26½ million incomes there were only about 3,000 incomes after tax of more than £6,000 a year. More than one-quarter of incomes after tax were in the £250-500 range and slightly more (7.7 million) in the next range of £501-750. About 57 per cent of the yield from the above taxes came from persons with annual incomes of £1,000 a year and above, although the total incomes before tax of this group accounted for only 23 per cent of all personal income.

PERSONAL INCOME AND EXPENDITURE, 1961

(In £ million at current prices)



On the other hand, the ownership of property and personal assets is less evenly distributed and tends to be concentrated in a relatively small number of individuals. Estimates for 1960 by the Board of Inland Revenue give net personal wealth (including landed property) in Great Britain as totalling £51,615 million; approaching one quarter of this total represented shareholdings in companies.

While consumer expenditure nearly doubled between 1950 and 1961, to reach a total of £17,302 million, in real terms (i.e. after discounting the effect of price changes), the increase has been slightly less than one-third. In the four years between 1957 and 1961 it rose by 11½ per cent (as shown in Table 12), although the increase in 1961 was less than 1½ per cent. The proportion of this larger expenditure devoted to food has been falling slightly each year and now accounts for just under 30 per cent; outlays on manufactured foods and on beverages, however, have risen appreciably. Housing absorbs about 8½ per cent of total expenditure. Spending on motor cars and other personal transport has shown a steep rise since 1951, and there has also been a substantial growth in spending on household electrical equipment. Outlay on cinema-going has dropped by half since 1956, while that on running costs of vehicles has risen by about 68 per cent.

TABLE 12
CONSUMER EXPENDITURE IN THE UNITED KINGDOM
(At 1958 Market Prices)

Category	Expenditure		Increase	
	1957	1961	1957-61	1957-61
	£ million	£ million	£ million	Per cent
Food	4,574	4,879	305	6½
Alcoholic drink	914	1,080	166	18
Tobacco	1,012	1,101	89	9
Housing, fuel and light	1,976	2,159	183	9½
Clothing and footwear	1,450	1,644	194	13½
Cars	331	548	217	65½
Other durable goods	679	768	89	13
Other goods	1,651	2,047	396	24
Other services	2,286	2,392	106	4½
TOTALS	14,873	16,618	1,745	11½

Incomes and Prices

Between 1945 and the middle of 1958, the cost of living in the United Kingdom rose almost without interruption, though at varying rates of increase. The most rapid rise in retail prices, roughly 10 per cent, was between 1950 and 1951; the lowest, about 2 per cent, between 1953 and 1954. After two years of stability, retail prices advanced by a further 5½ per cent between mid-1960 and mid-1962. From 1950 to 1961, retail prices increased by 54 per cent; hourly wage rates by 79 per cent; personal incomes as a whole by 106 per cent. The annual rate of increases of incomes has been nearly 7 per cent (but about 5½ per cent since 1957), while the corresponding rise in the national

product per head of the labour force has been only about 2 per cent. It is clear that the main immediate cause of the rise in prices has been the tendency of money incomes to rise faster than production.

Steps have been taken by the Government throughout the period to check gradual inflation. The main weapons used since 1955 have been the prevention of excessive demand by monetary and fiscal measures and appeals for voluntary restraint in increases in wages and profits.

Following severe but generally successful measures in the autumn of 1957 to halt the upward drift in costs and prices, a policy of expansion again became feasible. In 1959 and the early months of 1960 there was a rapid growth in demand and output, and it became necessary to restrain the pressure of demand by a series of moderate disinflationary measures. Balance of payments difficulties made more stringent measures necessary in the summer of 1961. They included a sharp rise in bank rate, increases in indirect taxes and an appeal for a 'pause' in wage and salary increases and for restraint in profit and dividends. Government policy on incomes for the period following the 'pause' was outlined in a White Paper published in February 1962. This proposed that increases in wages and salaries and in other incomes should be kept within the figure of 2-2½ per cent, which represented the annual average rate of growth of national production per head in recent years, and asked for continued restraint in profits and dividends.

Longer Term Policies

As part of the Government's plans to secure economic stability and sustained growth, the National Economic Development Council (NEDC) was set up in February 1962. The task of the NEDC, of which the Chancellor of the Exchequer is chairman, is to examine the economic performance of the nation with particular concern for plans for the future in both the private and the public sector, to consider use of resources and to seek agreement upon ways of increasing the rate of sound growth.

Long-term planning of public expenditure, with regular surveys for periods of years ahead, is already being developed by the Government.

In July 1962 the Government announced its intention to set up a National Incomes Commission to consider, in the light of the public interest, important claims for income increases both in industry and in public and other services, and to publish its findings.

Balance of Payments

A strong balance of payments is vital to Britain because of its exceptionally high degree of dependence on international trade, its many overseas commitments, and its position as banker to the sterling area: therefore, one of the foremost objectives of the Government's economic policy must always be to preserve this strength.

Britain's overseas short-term liabilities in the form of sterling balances held by other countries and non-territorial organisations are substantial, amounting to £4,515 million at the end of 1961. Gold and foreign currency reserves at the end of July 1962 stood at £1,041 million. As a second line of reserves, the United Kingdom has drawing rights on the International Monetary Fund (IMF) which it can exercise with the permission of the Fund. In August and September 1961, to strengthen the reserves, the United Kingdom drew \$1,500 million (£536 million) in nine different currencies from the Fund and obtained a standby credit for the equivalent of a further \$500 million (£178 million). The final instalment in repayment of these drawings was made in July 1962 (see p. 435). Taking into account external assets and liabilities as a whole, long-term as well as short-term, the United Kingdom is probably a net creditor country.

In normal times it is necessary for the United Kingdom to earn a substantial surplus on current account in order to finance a capital outflow in the form of private investment and Government grants and loans.

There are also, however, important commitments which the United Kingdom has to meet within the current account. The most important of these are the cost of overseas military expenditure, which rose from £182 million in 1958 to £227 million in 1961, and grant assistance to less developed territories, mainly the United Kingdom dependent territories. Total bilateral grant aid of this kind exceeded £70 million in 1961; in addition, there is United Kingdom multilateral assistance, in the form of contributions to international agencies such as the International Bank.

On capital account, the largest component is generally private investment abroad (net of disinvestment) and over the last few years the outflow has been about £300–350 million a year. A considerable proportion of this outflow has been to the less developed countries and has thus maintained the traditional role of Britain as a source of finance for overseas development.

Latterly there has been a steady increase in the flow of private capital to Britain from overseas. In 1961 the inflow was exceptionally large, partly because of the investment by the Ford Motor Company of America in its United Kingdom subsidiary (£131 million), and for the first time the private inflow was greater than private outflow.

The United Kingdom also has to make repayments of capital and interest on post-war loans from the United States and Canada: the total service of these loans requires about £67 million a year. In addition, there has been a substantial increase in recent years in Government loans to help finance development in developing countries. (Total United Kingdom aid to overseas countries, including grants as well as loans, rose to about £160 million in 1961 from £82 million in 1957–58.)

If the special factor of subscriptions to international organisations is ignored, in recent years the net capital movement has been outward, averaging about £210 million a year from 1958–1960. In 1961, because of the Ford Motor Company transaction and the advance repayment of loans to the United Kingdom, there was, exceptionally, a small net capital inflow.

For a fuller account of the balance of payments, see Chapter 14.

INDUSTRY

ORGANISATION AND PRODUCTION

The United Kingdom was the first country in the world to become highly industrialised. Thirteen people work in mining, manufacturing and building for every one in agriculture. The United Kingdom is one of the world's largest exporters of manufactured goods per head of population and the range of its industrial manufactures reflects its position as one of the most important workshops of the world.

Location

The factors that have influenced the location of industry in Britain are many and various. During the rapid industrialisation of the nineteenth century one of the most important influences was the proximity of coal, the major source of power, particularly when it was associated with ease of access to other raw materials such as iron ore in the West Midlands and salt (for chemicals) in Cheshire, and to the coast, which in turn offered easy access to imported raw materials and a quick outlet for exports. In the course of the past hundred years, the pull exercised by coal has been progressively weakened as improved means of communication and an alternative source of power in electricity have been developed and have enabled advantage to be taken of other sites—for example, those near to big consumer markets and plentiful supplies of labour. The main areas of industrial concentration are still, with one exception (London), the areas which saw the beginning of Britain's industrial greatness and which, with two exceptions (London and Belfast), are on or near coalfields; but many smaller and more widely dispersed centres of industry have grown up, notably in southern England.

During the inter-war period there was a tendency for the 'new' industries, such as those manufacturing motor vehicles, electrical goods and rubber products, to develop rapidly in the south (especially in and around Greater London) and in the Midlands. On the other hand, this period was one of acute depression and mass unemployment for the older industrial areas which specialised in the great staple industries—coal-mining, steel, shipbuilding, marine engineering and cotton manufacture. These conditions prompted official action (which has been intensified since the second world war) aimed at encouraging the development and diversification of industry in the areas where labour and other unused resources are to be found and discouraging further industrialisation in congested areas, and these policies, allied to the war-time dispersal of industry and the widespread demand for new factory premises over the past decade, have had a considerable effect.

A brief description follows of the location of British industry, grouped according to broad geographical areas.

Greater London and the South-eastern Region

London, situated at the head of ocean navigation on the Thames estuary, is Britain's capital and main communication centre, probably still the world's most important

financial centre, one of the world's three largest cities (with Tokyo and New York) and one of the world's three largest ports (with New York and Rotterdam). Greater London (see p. 18), including the urbanised fringe areas within 40 to 45 miles of Charing Cross, has a working population of over five million, of whom nearly a half are in manufacturing industry. London is the main centre in Britain of the clothing and food and drink industries, of printing, of cinema film production, and of the manufacture of furniture, materials for the arts, precision instruments and many other specialised products. Small firms predominate in many of these industries and the average size of manufacturing firms (particularly in the County of London) is well below the national average. London, especially its outer ring, is also an important area for light engineering, chemicals and consumer goods and has some heavy engineering plants. Towards the periphery of the London conurbation and in the new urban development outside it, industry, particularly the electronics and a variety of consumer goods industries, has been expanding rapidly; some of the largest aircraft plants are in this area, as well as the factories, at Dagenham, Luton and Dunstable, of two of the five main motor vehicle manufacturers. Along the lower Thames and Medway estuaries there are large oil refineries as well as shipyards and a variety of other engineering works.

West and South-west England

The largest city, Bristol, is both a leading port and an industrial centre with aircraft, tobacco, food processing, paper, paint and other industries. Gloucester has aircraft and engineering plants; Swindon, in Wiltshire, has railway and engineering works. The port of Southampton is served by the largest passenger liners and has ship-repair yards, oil refineries, synthetic rubber and other industries. Plymouth has an important naval dockyard and several light industries. The noted West of England woollen and worsted cloths come from factories in the Cotswold valleys.

East Anglia and Lincolnshire

Besides being one of the most productive agricultural regions, the eastern counties possess some sizeable towns. Ipswich and Grantham are renowned for agricultural machinery and implements, and Norwich for footwear and food manufacture. Food canning and freezing, based mainly on locally grown produce, have developed rapidly. Scunthorpe, in Lincolnshire, is an important steel-making centre, and the ports of Grimsby and Yarmouth have extensive fish processing plants.

Midlands

The main industrial area of the Midlands consists of the great conurbation centred on Birmingham and Wolverhampton (which includes portions of Staffordshire, Worcestershire and Warwickshire) where there is a wide variety of industry, including notably the manufacture of metals, electrical and engineering products of all kinds, and also jewellery, rubber products and domestic metalware. The smaller conurbation of North Staffordshire, centred on Stoke-on-Trent, is devoted chiefly to the manufacture of pottery and china and to coalmining. The largest concentration of motor vehicle manufacture in the United Kingdom is situated in the Midlands, at Coventry and Birmingham and, further to the south, near Oxford.

Industrial cities and towns lying outside the main industrial area include Leicester (hosiery, clothing, footwear and footwear machinery), Derby (general engineering, locomotives, aero-engines), Nottingham (light engineering, lace, drugs, tobacco), Rugby (electrical engineering), Northampton (footwear, engineering) and Kidderminster (carpets). Corby, in Northamptonshire, has a steel industry originally based on

local deposits of iron ore, and at Peterborough there are several large engineering works. The richest coalfield in Britain, with the highest output per man, lies in the north-west of the area and continues into Yorkshire.

Lancashire

Besides being the commercial hub of the cotton textile industry, Manchester is one of the chief centres of electrical and heavy engineering, machine tools and dye-stuffs in Britain. Most of the cotton yarn is spun in Bolton, Oldham, and Rochdale, and at Stockport (in Cheshire); further to the north lie the weaving towns of Burnley, Nelson, Blackburn, Colne, Accrington and Darwen; Preston and Bury have both spinning and weaving plants. Engineering industries, notably the manufacture of printing, textile and electrical machinery and commercial vehicles, are, however, more important to the area than cotton, which has been declining for some years. The Lancashire coalfield also lies in the Manchester-Wigan area.

The Manchester Ship Canal, which carries a substantial volume of overseas trade, links Manchester with Merseyside. It passes through the important industrial towns of Warrington with its metal industries (such as wire-drawing), Widnes with its chemicals, and Ellesmere Port with its oil refinery installations, before reaching the Mersey estuary. St. Helens, to the north of the canal, is famous for glass manufacture. Liverpool is the second port of Britain, a great commercial and insurance centre and, after London, the greatest centre for processing imported foodstuffs and raw materials, being noted especially for flour milling, soap manufacture, sugar refining and rubber products. Among its older industries is ship repairing; shipbuilding is a major industry across the river at Birkenhead. Many new industries, including electrical engineering and the manufacture of other heavy industrial equipment, have been established in the Liverpool area, particularly on industrial estates. Barrow, in the north-west of the county, is a well-known shipbuilding and marine engineering area.

Yorkshire

Most of the county's industry is located in the West Riding, where about 90 per cent of the United Kingdom's worsted industry and the greater proportion of its woollen industry are found. Bradford is the main city for worsteds and also the commercial centre of the whole wool trade; Morley and Leeds specialise in cheaper cloths, and Batley, Dewsbury and Cleckheaton in heavy cloth. Huddersfield has a reputation for fine woollens and Halifax for carpets. Leeds, the commercial capital of the area, has a large ready-made clothing industry and manufactures a range of engineering products. Further south is the heavy engineering centre of Sheffield, famous for its high quality steels, cutlery and tools. The area's extensive coalfields provide about one-fifth of Britain's coal. York, noted for chocolates and confectionery manufacture and with important railway workshops, and Hull, one of the world's largest fishing ports and with many manufacturing industries, including engineering, vegetable oil processing, paints and sawmilling, are other important industrial towns in Yorkshire.

North-east England

The coal industry is of great importance in Northumberland and Durham. Tyneside and Wearside together are second only to Clydeside for shipbuilding and ship repairing, and ships are also built at the Hartlepoons and on Tees-side. Iron and steel plants are situated at Consett, in County Durham, and in the Middlesbrough area, which is also the most important centre for chemicals in Britain. Tyneside is particularly noted for the manufacture of heavy electrical equipment. Other industries of the area, whose manufactures have been greatly diversified since 1937 as a result of the establishment

of large industrial estates, are mining and other machinery, rolling mill plant, machine tools, ropes, glass, clothing and scientific instruments.

Wales

Although coalmining, including the extraction of special coals such as steam coal and anthracite, remains the largest single source of employment in South Wales, the area today produces many categories of capital and consumer goods and more than twice as many people work in general manufacturing as in coalmining. Its steel industry, with some of the most modern plants in Europe, supplies almost all Britain's output of tinplate and a large proportion of sheet steel. In the past 25 years a number of new industries have been established, including plastics, synthetic fibres, clothing, electronics and light engineering; many of the new factories are on industrial estates. The largest cities are Cardiff and Swansea. In North Wales a number of light industries are located in the seaside resorts and other towns, particularly Wrexham.

Scotland

The thickly populated, industrial area of Clydeside, which includes the city of Glasgow, is Britain's largest shipbuilding and marine engineering centre. The steel industry, specialising in plate and heavier products, is mainly in the North Lanarkshire area. A variety of engineering products, such as earth-moving equipment, air-conditioning plant, industrial valves, food-processing machinery and commercial vehicles, are manufactured on Clydeside. The Scottish coalfields of the Lothians, Ayr, Fife and Lanark produce about one-tenth of Britain's coal, but many of the seams in the last-named fields are gradually becoming exhausted.

Edinburgh, the capital of Scotland and its second largest city, has printing, brewing, rubber, and engineering industries. The United Kingdom jute industry is concentrated in Dundee, which also provides many other products, such as office machinery, clocks and watches, refrigerators, and food manufactures. Aberdeen, the third city of Scotland and a famous fishing port, has several light industries. Kirkcaldy, in Fife, is the centre for the manufacture of linoleum. The border towns in the south are especially renowned for high quality tweeds and knitwear. The north of Scotland possesses Britain's only significant resources of hydro-electric power. In north-east Scotland is the largest concentration of whisky distilleries.

Northern Ireland

Although the area is relatively small and lacking in minerals, there is substantial and growing industrialisation, particularly in and around the capital city of Belfast. The largest single shipyard in the United Kingdom is sited in Belfast and, in addition to other long-established engineering activities, including the manufacture of marine engines and textile machinery, Northern Ireland has long been an important centre for textiles (particularly linen), clothing, and tobacco manufacture. Long-established industries outside Belfast are mainly connected with textiles or clothing but rapid diversification (see p. 262) has brought new industries to many areas. Aircraft construction has become an important industry, and more recently there have been extensive developments in such fields as man-made fibres, carpets, synthetic rubber, oil-well equipment, and a wide range of electrical and mechanical engineering, both light and heavy.

Distribution of Industry Policy

While the Government has no power to direct an individual firm to set up a new factory or plant in any particular area or site, it has sought, on both economic and

social grounds, to control the expansion of industry in some areas and to encourage it in others.

Under the Town and Country Planning Acts, the consent of the local planning authority is, in general, necessary for any new building, any extension of a building or any change in the use of an existing building. Where industrial floor space of more than 5,000 square feet is to be created, such consent cannot be sought without a certificate from the Board of Trade that the development is consistent with the proper distribution of industry. One object has been to try to limit the expansion of industry in congested areas, such as Greater London or Birmingham.

The main aim of the Government's positive measures has been the alleviation of local unemployment. The first Act dealing with this problem, the Special Areas (Development and Improvement) Act, was passed in 1934, a time of acute economic depression; its aim was to help certain large industrial regions, in which over a third of the working population were unemployed. Under this Act and an amending Act of 1937, these regions—West Cumberland, the north-east coast of England, South Wales and the Clyde Valley—were designated 'special areas' and special commissioners were made responsible for their development and improvement. Industry was attracted to the areas by various inducements, mainly the lease of factories built by Government-financed non-profit-making estate companies and also certain loan facilities and Government grants.

Under the Distribution of Industry Acts, 1945 and 1950, the original special areas were renamed 'development areas' and enlarged, and the Government's powers of assistance were strengthened. The Board of Trade took over the special commissioners' powers to build and let factories in these areas and, in addition, could and did designate additional areas, while the Treasury had powers to make loans or grants to undertakings unable to secure finance through normal channels.

Partly as a result of this Government action the special problems of some parts of the development areas have now largely disappeared; and the general employment position remains much better than it was before the war. On the other hand, employment problems emerged in a number of new, and often quite small and isolated, districts. To enable them to deal more flexibly with changes in the pattern of unemployment, the Government acquired new powers under the Distribution of Industry (Industrial Finance) Act, 1958, which permitted the Treasury to give financial assistance to undertakings which would provide employment in places with high and persistent unemployment, whether or not they were within development areas.

The legislative basis of the Government's powers to alleviate local unemployment was simplified and strengthened by the passing of the Local Employment Act, 1960. Under this Act, the Government's powers of assistance are centred in one department, the Board of Trade, which can name as 'development districts' places where high and persistent unemployment exists or is expected, and can offer a number of inducements to industrialists to settle or expand there. Specifically, the Board can build factories for leasing at favourable rents or sale on deferred terms; make a capital grant towards the cost of an industrialist's own factory or for unusual initial expenses arising solely from the choice of a development district; and make loans towards working capital or for acquiring premises or equipment. The appropriate Government departments can also make grants to local authorities for clearing derelict or neglected sites and for improving basic services.

Under the Act, the Government-controlled industrial estate companies, which under the Distribution of Industry Acts had run the industrial estates in the

development areas, have been replaced by three Industrial Estate Management Corporations, one for England, one for Wales and one for Scotland. These corporations are controlled and financed by the Board of Trade.

The Local Employment Act does not apply to Northern Ireland. The matters with which the Act deals are the concern of the Northern Ireland Parliament. Under the Industries Development Acts (Northern Ireland), 1945 to 1953, a comprehensive and flexible scheme of assistance (which can include the tenancy or purchase on favourable terms of a Government-built factory, together with a grant towards the cost of plant and machinery and the cost of transferring equipment from a factory outside Northern Ireland) can be offered to projects which appear likely to make a desirable contribution to the economy of Northern Ireland. Grants and loans can also be offered to the appropriate authorities for the improvement of basic services if these should be considered inadequate for a given development. Firms which are assisted under the Industries Development legislation are expected to undertake a specific development which will employ an agreed number of persons within a given period. Under the Capital Grants to Industry Acts (Northern Ireland), 1954 to 1962, manufacturing enterprises in Northern Ireland are entitled to claim outright grants of $33\frac{1}{3}$ per cent of their annual expenditure on plant and machinery and industrial building, subject, in the case of firms new to Northern Ireland, to a maximum grant of £200,000 in any one year. This assistance, which is largely unconditional, is intended primarily to encourage modernisation and capital investment.

Since 1945, 170 new firms have been established in Northern Ireland and 113 schemes of expansion carried out with Government assistance, developments which at present are employing some 43,000 persons. The Ministry of Commerce is the Northern Ireland Government department concerned with the administration of the Industries Development and Capital Grants legislation.

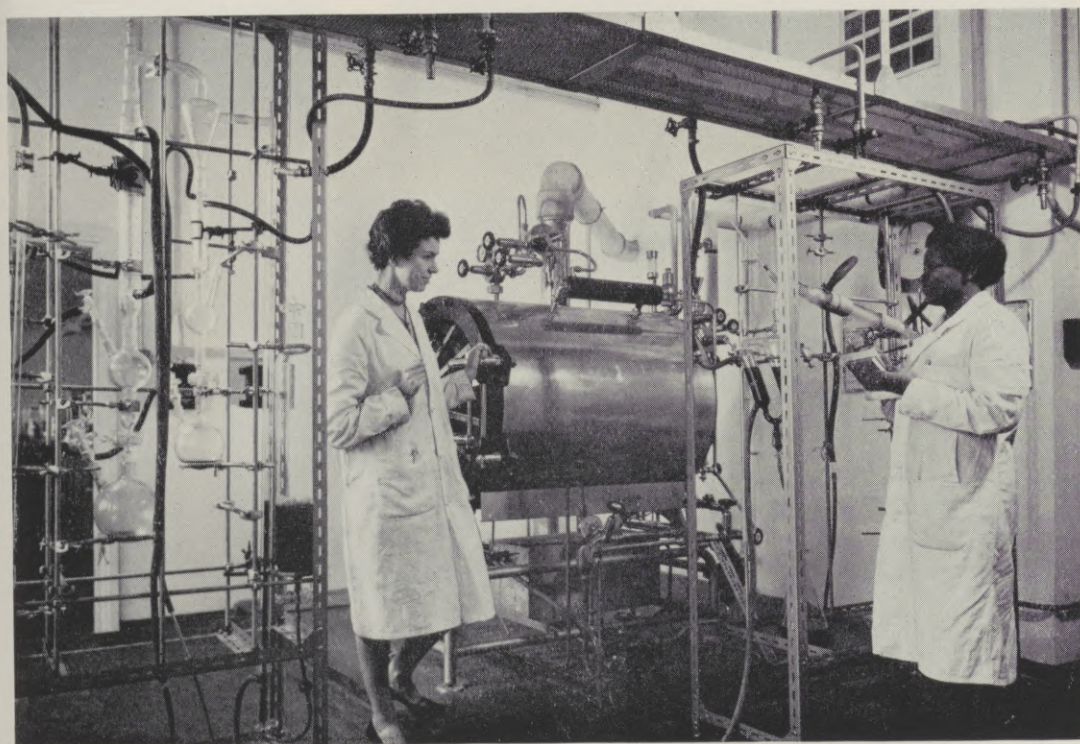
Encouragement is given to the development of rural industries. In England and Wales there is the Rural Industries Bureau, which, on the recommendation of Rural Community Councils, provides technical advice and instruction to craftsmen and small rural businesses; it also provides loans from the Rural Industries Loan Fund, started in 1940, for the acquisition of equipment and the purchase or improvement of workshops. In Scotland the corresponding body is the Scottish Country Industries Development Trust, founded in 1935, which exercises local and national responsibilities for the development of rural industries.

Development Organisations

In Northern Ireland, Scotland and Wales there are national organisations devoted to encouraging the expansion and diversification of industry. The Northern Ireland Development Council, established in 1955, makes more widely known in Great Britain and elsewhere the facilities offered by Northern Ireland to new undertakings; and advises the Northern Ireland Government on matters connected with industrial development. The chairman of the council is appointed by the Prime Minister of Northern Ireland and the other members are appointed by the Prime Minister in consultation with the chairman. The Scottish Council (Development and Industry), with a wide membership including local authorities, trade associations, trade unions, chambers of commerce, co-operative societies and banks, is concerned with the economic development of Scotland. It assists the expansion of existing industry, fosters the growth of new industries, especially in areas requiring development, encourages exports, organises exhibitions and publicises Scottish trade and industry. There are several voluntary associations concerned with the needs of Welsh industry

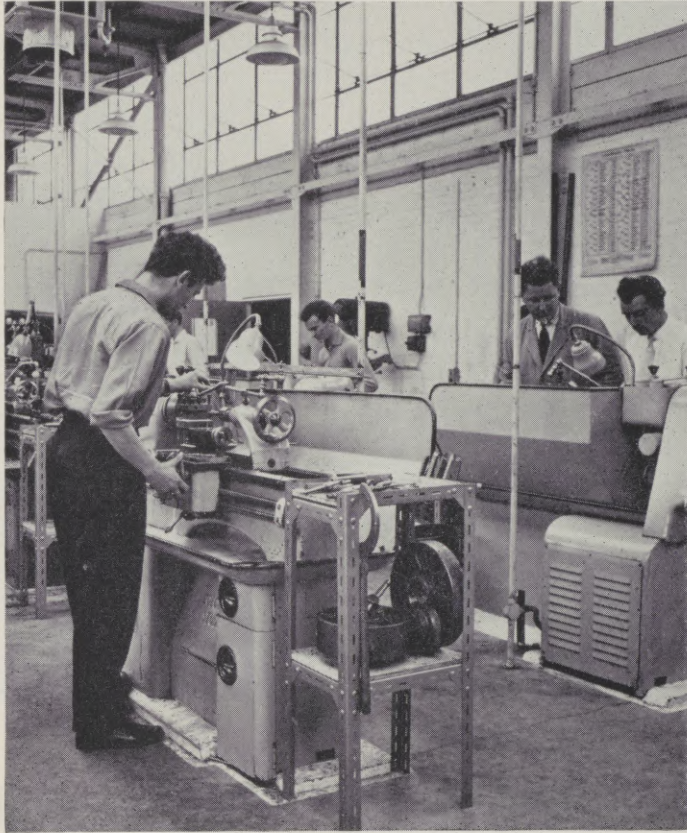


Closed circuit television in use for the study of optics at Edinburgh University.

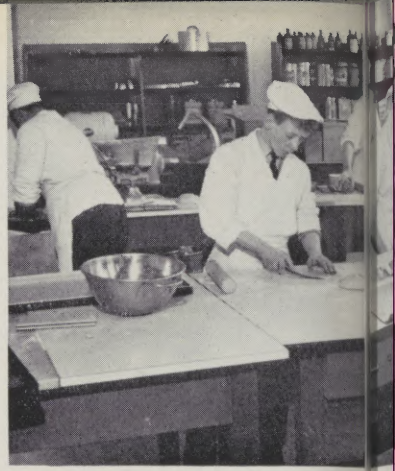


Students at the School of Pharmacy, Welsh College of Advanced Technology, Cardiff.

TECHNICAL EDUCATION IN BRITAIN



Engineering class in a new town:
Corby Technical College.



Bakery course, Domestic and Trade College

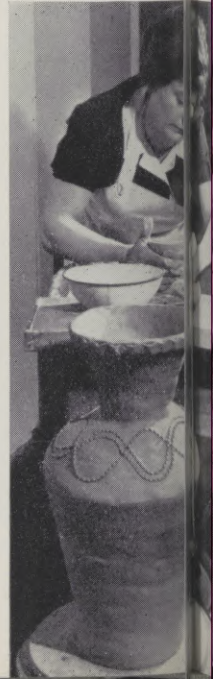


Hairdressing: Ipswich Civic College



Commercial Department at Brixton Day College.

Pottery making
Science Training

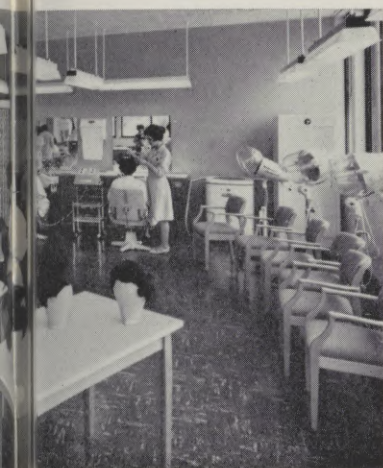




A student pilot at the College of Air Training, Hamble.



College, Fallowfield, Manchester.



Surveying at a Forestry Commission school, North Wales.

attersea Domestic
nursery
College.



Carpentry students, St. Albans College of Further Education.



The Atomic Energy Authority's Isotope School trains many overseas scientists.



Studying weed control at Nottingham University School of Agriculture.

as a whole, but the most similar in aims and constitution to the Scottish Council is the Development Corporation for Wales, founded in 1959.

In England certain regions and cities have established industrial development associations which are concerned with studying local industrial needs and with trying to attract suitable industry. These associations are sponsored mainly by local authorities and trade associations, but may also include firms, financial and commercial interests, and individuals in their membership.

The Structure of Industry

The pattern of ownership and organisation in industry is varied. Personal, corporate, co-operative and public enterprise all assume a number of different forms, and all are important in the economy. Industrial enterprises vary from the many small workshops to vast organisations such as the National Coal Board, a public corporation with over 600,000 employees; Imperial Chemical Industries Ltd., a limited liability company which, with its subsidiaries, employs about 114,000 persons in the United Kingdom; and the Co-operative Wholesale Society Ltd., a co-operative society with about 50,000 employees.

Role of Public Enterprise

Throughout the first half of the twentieth century, the growth of the social services, especially health, education and housing, led to the progressively greater influence of the public sector of the economy. There was also an increase in the State's direct participation in productive economic activities, particularly in the decade 1940-50. State participation is effected mainly through special statutory bodies set up to deal with a particular activity. Such bodies, though not part of a Government department, are under a considerable but varying degree of public control (see p. 269). The most important of these statutory bodies are the public corporations which operate major industries and services in the public interest.

The public corporation in its twentieth-century form is, generally speaking, a public body having a clearly defined and specific task. Its board of directors and its staff are chosen for their experience and competence in a particular field; they are not civil servants, and although they are accountable to Parliament for their actions in a variety of ways, it is they and not the ministers of the sponsoring departments who are responsible for the management of the corporations. Certain of the corporations are self-supporting; others receive Exchequer grants to help them in carrying out the duties with which they have been charged.

Before the second world war, a number of public corporations were established¹ in those industries and services where it was considered that the national interest required co-ordination or control by a public authority. Their constitutions had no

¹ The principal corporations appointed before the second world war were: (1) the Central Electricity Board, established by the Electricity Supply Act, 1926, to rationalise electricity generation and build and operate a main transmission system; (2) the British Broadcasting Corporation, established in 1927 by Royal Charter to provide a national broadcasting service; (3) the Electricity Board for Northern Ireland, established by the Electricity (Supply) Act (Northern Ireland), 1931, to develop electricity supplies in Northern Ireland outside the two county boroughs, Belfast and Londonderry; (4) the London Passenger Transport Board, established by Act of Parliament in 1933, to operate the public transport system of the London metropolitan area; (5) the Northern Ireland Road Transport Board, established by the Road and Rail Transport Act (Northern Ireland), 1935, to acquire public road transport services in Northern Ireland outside the county boroughs; (6) the British Overseas Airways Corporation, established by the British Overseas Airways Act, 1939, to take over the operation of the two main existing air transport companies—Imperial Airways and British Airways.

standard pattern and their governing bodies differed in the method of appointment and in composition.

Immediately after the second world war, the nationalisation Acts set up public corporations to run certain major industries and services, including coalmining, inland transport, gas supply, electricity generation and supply, and civil air transport. These post-war corporations are less varied in the structure of their governing bodies, which are appointed by the responsible minister.

The following corporations, the organisation and functions of which are described in later chapters, are now operating or controlling large-scale industries or services:

The Bank of England.

The British Broadcasting Corporation.

The British Transport Commission.¹

The Ulster Transport Authority.

The British Overseas Airways Corporation.

British European Airways.

The National Coal Board.

The Gas Council and Area Gas Boards.

The Electricity Council, the Central Electricity Generating Board and the Area Electricity Boards.

The Electricity Board for Northern Ireland.

The North of Scotland Hydro-Electric Board.

The South of Scotland Electricity Board.

The United Kingdom Atomic Energy Authority.

The Independent Television Authority.

Mining and Quarrying

Much the most important of the British extractive industries is coalmining. The coalmining industry of Great Britain (see p. 275), is operated as a single co-ordinated enterprise under the direction of the National Coal Board.

Nearly all other mining and quarrying (iron ore, sand, gravel, chalk, limestone, salt, tin, slate, oil shale and china clay) is undertaken by private enterprises, usually owned and operated by limited liability companies. About 70,000 workers are employed in mining and quarrying, excluding coalmining.

Manufacturing

Most manufacturing is in the hands of private enterprise. Exceptions include fissile materials and radioactive isotopes made by the Atomic Energy Authority, locomotives and rolling-stock for use on British Railways, built in workshops owned and operated by the British Transport Commission, a considerable quantity of arms and military equipment made in Royal Ordnance factories and other factories operated by the War Office and the Ministry of Aviation, and some fighting ships built in naval dockyards operated by the Admiralty. The staff of the Stationery Office do some printing and bookbinding, while the repair, and to a limited extent the construction, of post office equipment is carried on in factories run by the Post Office. Certain factories, giving employment to the severely disabled, are operated by Remploi Ltd., a non-

¹ The British Transport Commission is to be dissolved under a general reorganisation of the State-owned rail, road, and associated undertakings; see p. 369.

profit-making public company financed on the Vote of the Ministry of Labour, which appoints the directors (see p. 456). The equity of certain iron and steel companies is still held by a government agency, the Iron and Steel Holdings Realisation Agency (see p. 299).

Surveys of the size of all manufacturing establishments employing more than 10 persons are made periodically by the Ministry of Labour; the results of the most recent of these surveys, based on returns rendered by employers in June 1961, show that nearly a third of all employees in such establishments are in those employing from 100 to 499 persons, while slightly over a third are in establishments employing 1,000 or more persons. A high proportion of the biggest establishments are in the heavy industries, while the average size of establishments in industries making consumer goods is smaller than in manufacturing industries as a whole. Comparisons with results obtained in earlier surveys on similar lines suggest that there is a slow but significant trend towards an increase in the average size of manufacturing establishments: in 1961, establishments with 1,000 or more employees were found to employ 2,821,000 persons, over 25 per cent more than in 1953 and more than 2½ times as many as in 1935. In addition, there are estimated to be some 140,000 manufacturing establishments with fewer than 11 employees and in these a total of about 750,000 workers are employed.

The size of establishments is not in itself an indication of the size of manufacturing enterprises, as a single enterprise may own several establishments, not all of them necessarily engaged in the same or similar activities. An analysis of manufacturing enterprises by size (employment) is shown in the Report of the Census of Production for 1958. An enterprise, as defined in the Census, normally consists of either a single firm or a holding company together with its subsidiaries. Just over half of all employment in British manufacturing industries in 1958 was accounted for by about 950 large private enterprises employing 1,000 or more people, the largest 70 or so accounting roughly for a quarter. In some industries a small number of big companies and their subsidiaries are responsible for most of the total production. Examples are oil refining, steel making, the manufacture of motor vehicles and components, aircraft and aero-engines, heavy electrical equipment, bicycles, cement, and basic chemicals. Shares in these companies are usually distributed among a great number of holders and it is rare for a few large holders to have a controlling interest. For example, five of the largest public companies each have more than 100,000 shareholders. The trend is towards merging into larger units of control; and especially in brewing, pharmaceuticals, aircraft, electrical products and newspaper and magazine publishing there have been several movements in this direction in recent years.

The way in which the work of production is divided within and between different firms varies from industry to industry. In the cotton industry, for example, it is usual for different firms to undertake the various main processes of production (spinning, weaving, finishing), while in the woollen section of the wool textile industry all these processes are commonly undertaken within the same firm. Some of the leading establishments in the vehicles group of industries are primarily engaged on the assembly of parts, many of which have been manufactured for them under contract by specialist firms.

An account of some of the principal manufacturing industries is given on pp. 297-324.

Building and Civil Engineering

In building and civil engineering, large-scale work is usually carried out by private contractors. From the end of the second world war to 1958 most new houses were

built by firms under contract to local authorities, but the majority are now built on private orders, or for sale (see p. 191).

Building firms may be divided into those undertaking general building and civil engineering work and those concerned with highly specialised work, many of which operate outside as well as inside the building industry. Building is an industry of small firms; more than three-quarters of the firms employ fewer than 20 employees. For a fuller account of the building and civil engineering industries see p. 294.

Industrial Association

From the middle of the nineteenth century, private industrial undertakings have increasingly entered into voluntary association for a number of different purposes. Some of the more important of these purposes may be classified as follows:

1. The provision of common services, the exchange of information, liaison with the Government, and representation of their members' point of view.
2. The regulation of trading practices, sometimes including the regulation of prices (see p. 273).
3. Negotiation with trade unions on wages and conditions of work.

Associations for the first and third of these purposes cover, with varying completeness, most of British industry, but there are wide sectors of industry where there are no collective agreements to regulate trading practices. Associations which deal with labour matters usually consist of firms engaged in the same type of operation or manufacturing process. Organisations mainly concerned with representations to the Government, provision of common services or the regulation of trading practices are built up round a product or an allied group of products. In an industrial sector concerned wholly with an allied group of products, a single association may undertake all the required functions.

There are about 80 national federations and probably altogether about 1,500 employers' organisations (mostly regional or local, and members or branches of the national federations) all concerned with negotiation of wages and conditions of work. Most of the national federations are in turn affiliated to the *British Employers' Confederation*, the national body representing employers on labour questions affecting industry generally (see p. 470).

The number of manufacturers' associations concerned with providing common services is not known precisely, but according to a survey carried out by Political and Economic Planning (an independent research organisation) between 1953 and 1956, some 1,300 were in existence, varying greatly in importance, structure and activities. Membership of the *Federation of British Industries* (FBI), the national body recognised as the spokesman for British industry on economic, commercial and production (as distinct from labour) matters, consists of some 8,300 individual firms and nearly 300 national trade organisations, with a total affiliated membership of some 40,000 to 45,000 firms. The FBI has offices in the main industrial centres in the United Kingdom and is widely represented abroad. It has a wholly owned subsidiary company, British Overseas Fairs Limited, which is responsible for organising British trade fairs overseas.

A number of the organisations affiliated to the FBI also deal with labour matters and are affiliated to the British Employers' Confederation. The two organisations work closely together on matters of common interest.

Other important national associations of employers are the *National Association of British Manufacturers* (NABM) and the *Association of British Chambers of Commerce*.

The members of NABM are over 5,000 manufacturing firms, mainly small or medium sized, and some 66 trade associations are affiliated to it. Like the FBI it has regional branches. The Association of British Chambers of Commerce is the central organisation to which 98 local chambers of commerce (together with 15 British Chambers of Commerce operating in foreign countries) are affiliated. The Association celebrated its centenary in 1960. In Scotland there is also a central organisation, the Council of Scottish Chambers of Commerce. These bodies are open to all kinds of producers and traders and exist to promote the interests of local industry and commerce. The FBI, the NABM and the Chambers of Commerce often act jointly in matters of common concern.

Relations with Government

The Government is able to influence industry in a number of ways—through fiscal and monetary policy, by means of physical controls and inducements, as well as by providing information and advice.

A system has grown up whereby a particular Government department acts as the main point of contact, or 'production department', for each major industry.

The department through which the Government's relations with trade and industry are chiefly conducted is the Board of Trade (which has regional offices in the principal industrial centres) and its responsibilities cover a wide range of industries and materials. Certain industries and services, however, are the responsibility of other departments, as production departments:

Ministry of Aviation	.. .. .	Aircraft, aero-engines, electronics industries and civil aviation.
Ministry of Agriculture, Fisheries and Food		Farming, horticulture, agricultural machinery and fisheries in England and Wales; food processing in Great Britain.
Ministry of Power	.. .. .	Coal, oil, gas, electricity (including nuclear power), iron and steel.
Ministry of Transport	.. .. .	Transport services (excluding air transport), shipbuilding and ship repairing, roadmaking, and certain sections of the quarrying industry.
Ministry of Public Building and Works	..	Building, civil engineering and building materials.
Ministry of Housing and Local Government		Housebuilding in England and Wales.
Ministry of Health	.. .. .	Medical and surgical goods.
Department of Agriculture and Fisheries for Scotland		Agriculture and horticulture in Scotland; Scottish fisheries.
Scottish Development Department	..	Scottish economic development generally (including industry, electricity, roads, housing) in conjunction with the Board of Trade and other departments covering the whole of Great Britain.

The Treasury is responsible for economic policy, and specifically for fiscal and monetary policy, through which it is able to influence the level of economic activity and the utilisation of the nation's resources. The Ministry of Labour is the channel through which manpower policy is conducted. The Department of Scientific and Industrial Research (DSIR) undertakes research in the national interest and encourages and assists industrial research and the application of scientific knowledge to industry.

There are separate departments of the Northern Ireland Government for matters within the competence of the Northern Ireland Parliament. The Ministry of Commerce deals with industry, including the encouragement of industrial development.

During and after the second world war, many operations of industry and commerce were subject to Government control. Very few controls now remain; of those in force probably the most important is the power of the Board of Trade to influence the location of industry. The housing departments, acting through local planning authorities, have powers to control the use of land. The export and import of a small range of products still require Board of Trade approval.

The Central Statistical Office, which is attached to the Cabinet Office, was established in 1940 to provide a comprehensive statistical service to assist the authorities in framing economic and financial policy.

Although departments themselves compile statistics relating to their particular responsibilities, and may publish them in their own standard publications, the comprehensive statistical publications are prepared by the Central Statistical Office, which collects the main departmental statistics and compiles its own series from departmental and other information. Statistics relating to industry may be found in its regular publications: the *Monthly Digest of Statistics, Economic Trends, Financial Statistics* (monthly), *The United Kingdom Balance of Payments* (published half-yearly), the *Annual Abstract of Statistics*, the *Preliminary Estimates of National Income and Expenditure* (published annually before the Budget) and the fuller *National Income and Expenditure* Blue Book issued later in the year. *Statistics on Incomes, Prices, Employment and Production* is published quarterly (the first issue appeared in April 1962); it is compiled by the Ministry of Labour to provide factual information for those engaged in wage negotiations. The *Digest of Scottish Statistics* is published half-yearly by the Scottish Statistical Office, a *Digest of Northern Ireland Statistics* at half-yearly or yearly intervals by the Ministry of Finance of the Northern Ireland Government, and an annual *Digest of Welsh Statistics* by the Ministry of Housing and Local Government.

To ensure that industry is aware of Government policy and that policy is framed with a knowledge of industry's needs and difficulties, a number of consultative bodies have been set up representing Government, employers' associations and trade unions. Among these are the *National Production Advisory Council on Industry* (NPACI) and the *National Joint Advisory Council* (NJAC). The NPACI, which covers the wider problems of industrial production, is under the chairmanship of the Chancellor of the Exchequer and includes representatives of the Regional Boards for Industry (see below) and of certain Government departments as well as of employers and workers. Northern Ireland sends two representatives to meetings of the NPACI as observers. The NJAC consists of representatives of private employers, the nationalised industries and trade unions, under the chairmanship of the Minister of Labour, and is concerned with matters affecting the relations between employers and workers.

These consultative bodies approach the study of problems from a broad national point of view. There are, in addition, bodies concerned with the special problems of Scotland and Wales and of the English regions. The most important of these are the

nine *Regional Boards for Industry* and the corresponding *Scottish* and *Welsh Boards for Industry*, whose main functions are to keep the Government informed on industrial conditions in the English regions and in Wales and Scotland either by direct reference to Government departments or through representation on the NPACI, and to provide a link between central Government and local industry. The regional boards have set up district advisory committees wherever they considered that the geographical grouping of industry justified such a step.

A body of somewhat different character and function is the *National Economic Development Council* (NEDC), established in February 1962 to examine plans for the future both in the private and in the public sector of industry, to consider obstacles to quicker economic growth and to seek agreement upon ways to increase the rate of sound growth. The Chancellor of the Exchequer is chairman of the Council and appoints its members, which in 1962 consisted of industrial and trade union leaders, the Minister of Labour, the President of the Board of Trade and two well-known economists. The Council has its own permanent staff (not members of the Civil Service) under a Director General.

Government and the Nationalised Industries

The extent to which the responsible minister has power over the working of the boards which have been set up to run the nationalised industries varies from industry to industry, but two features are common to almost all of them. First, the minister appoints (and may dismiss) the chairman and members of each board, and secondly, he has power to give general directions as to how the industry should be run, but does not interfere in day-to-day management. It is usually also laid down that the board shall give to the minister any information, statistics and financial accounts which he may require. In practice, as the responsible minister is kept fully informed and major policy decisions are reached in consultation with him, there is very seldom occasion for him to issue a formal directive.

The minister also has financial powers and responsibilities. The usual statutory requirement is that the board is required to conduct its business so that receipts at least balance outgoings taking one year with another. The responsible minister is usually empowered (subject to Treasury approval) to say what shall be done with any surplus revenues which may accrue. As regards finance of capital expenditure, the present system is that such finance as cannot be met from internal sources is mainly provided, in the form of interest-earning loans, by the minister from the Exchequer, bank advances being used only for normal requirements of short-term capital.

The minister responsible for each nationalised industry must take steps to see that the interests of the industry's customers are protected. This is usually done by the establishment of representative consumers' councils to consider complaints and suggestions made to them, and to advise the board or the minister on the changes they think desirable. It is recognised that these arrangements are still to a great extent experimental.

Government policy towards these industries is subject to the approval of Parliament. Opportunities for parliamentary discussion are afforded by debates, including debates on their annual reports and accounts, and by answers to parliamentary questions, which, in principle, are admissible only if concerned with policy rather than details of administration.

In a White Paper (*Cmnd. 1337*) issued in April 1961 the Government outlined certain general principles which it believed had to be applied for the administration of the nationalised industries to be efficient. Among them were a balancing of revenue

accounts over a five-year period, a closer definition of the financial and economic obligations of the industries, and greater freedom in price policies.

In order to ensure that parliamentary discussion of the nationalised industries is informed and effective, a House of Commons Select Committee on the Nationalised Industries was established in 1957 to examine the reports and accounts of the nationalised industries and to report to Parliament. Reports issued by the committee have so far dealt specifically with the two Scottish electricity boards, the National Coal Board, the airways corporations, British Railways and the gas industry. These reports have discussed problems of ministerial control, organisation and finance. A report published in February 1962 reviewed the action taken by the corporations and the Government in the light of the committee's recommendations.

Production and Productivity

Industrial production (mining and quarrying, manufacturing, building and contracting, and gas, electricity and water) increased rapidly in the immediate post-war years as industry was turned over from war production and manpower was released from the armed forces. It had regained the pre-war level by 1946, was 14 per cent greater by 1948, and by 1954 had exceeded the 1948 level by a further 27 per cent. The course of production and employment from 1958 to 1961 is shown in Table 13.

TABLE 13
PRODUCTION AND EMPLOYMENT IN INDUSTRY, 1958-61
(1958 = 100)

Year	Industrial Production		Employment in Industry
	All Industries	Manufacturing Industries	
1959	105	106	100
1960	112	115	102
1961	114	115	104

Partly because of measures taken to check inflationary trends, production from 1955 to 1958 showed only small changes. The volume and efficiency of industrial equipment and plant, however, increased steadily during this period in consequence of the high level of investment, and output rose rapidly in 1959 and by the second quarter of 1961 was about 15 per cent above the 1958 level on a seasonally adjusted basis.

Between 1958 and 1961 output in the chemicals industry rose by 24 per cent; in vehicles, by 9 per cent; and in engineering and electrical goods, by 21 per cent. Other industries which expanded considerably were clothing and footwear (22 per cent); bricks and cement (22 per cent); and paper, printing and publishing (20 per cent). Consumption of electric power over the period rose by about 30 per cent.

The increases in production since 1958 have been due partly to an increase in the labour force (about 3 per cent between mid-1959 and mid-1961 in civil employment as a whole and about 3½ per cent in productive industry) and partly to a variety of factors influencing sales and production, including increases in both domestic and world demand; technical advances in products, machinery and processes; the high

and increasing rate of fixed capital formation; and improvements in the management and morale of particular undertakings.

Gross fixed capital formation at home has continued to increase steadily; in 1961 it amounted to some 19 per cent of the gross domestic product and was estimated to be over 25 per cent greater than in 1958. Part of this rising investment is linked with the introduction of new techniques and equipment and in particular of machines and instruments, which lessen the need for human skill and supervision; it is, in fact, part of the process known as automation, which is beginning to affect the organisation of business enterprises and the structure of the labour force in advanced industrial countries and, in the long run, is likely to be responsible for very large increases in production and efficiency. Much investment, however, still consists of replacements, additions and improvements of a more traditional kind. In the short run, very large increases in output per man are sometimes achieved by such investment or simply by changes of policy, organisation or methods.

Both the long term and the short term growth of productivity thus depend most directly on the decisions of individual undertakings, and the promotion of productivity is regarded as primarily a matter for industry though Government departments and educational and research establishments also have their contribution to make.

Employers' associations and trade unions are engaged in activities to raise industrial productivity. The former often provide technical assistance, conduct market surveys, and support schemes of vocational education and training. The National Association of British Manufacturers has established an advisory service to enable small firms to obtain advice on production problems. The trade unions in many industries organise special schemes for training young people, and also a variety of courses designed to give trade unionists an understanding of modern management techniques. Private consultants specialising in management and work study are available to give advice to firms on measures to increase their productive efficiency; there are also many specialist institutions, both public and private, concerned with various aspects of productivity.

The British Productivity Council (BPC) has been established by both sides of industry to stimulate interest in methods of raising productivity. The BPC was set up in 1952 to continue and develop the work of the Anglo-American Productivity Council which, between 1948 and 1952, sent productivity teams from many British industries to study progress and techniques in the United States. It is an independent body on which are represented the British Employers' Confederation, the Federation of British Industries, the Trades Union Congress, the Association of British Chambers of Commerce, the National Association of British Manufacturers and the nationalised industries; its work is financed by contributions from these bodies and by a Government grant-in-aid. Advisory committees have been set up to promote productivity in the building trades, in agriculture and in retailing. Much of the BPC's work is done through over 100 local productivity committees and associations throughout the country. These local organisations arrange meetings, inter-factory visits, courses, conferences, film shows and exhibitions. To assist them, and the many other national and industrial bodies with which it co-operates, the BPC produces booklets, pamphlets, case studies, films and a monthly bulletin, and arranges work study demonstrations.

A National Productivity Year, initiated by the British Productivity Council (BPC), was due to open in November 1962. Its aim is to focus attention on every possible means that lie within the capacity of management and workers to raise efficiency and lower costs. It is backed by employers, professional organisations, trade unions, research bodies, universities and technical colleges.

The British Standards Institution (BSI), is a voluntary non-profit-making body incorporated by Royal Charter. It prepares and promulgates standards in respect of, *inter alia*, quality, performance, dimensions, testing methods and codes of practice. Voluntary acceptance of such standards by manufacturers, buyers and sellers reduces unnecessary variety and simplifies the specification of requirements, thus promoting industrial efficiency. The BSI is governed by a council consisting of representatives of the main organisations of employers and workers, professional institutions and the larger Government departments.

The Board of Trade is the department responsible for general aspects of the promotion of productivity and it administers the Government grants to the BPC, the BSI, and the Council of Industrial Design.

A number of other departments have responsibilities which bear on productivity. The Ministry of Labour has an Industrial Relations Service, which advises firms on personnel management and industrial relations. The Department of Scientific and Industrial Research is also concerned directly with research into such factors as productivity measurement techniques, production engineering and operator fatigue; and it provides technical advisory services. The Ministry of Education and the Scottish Education Department are responsible for the technical colleges, at which courses are available in such subjects as work study and industrial engineering. The Ministry of Public Building and Works provides a Technical Information Service for the building industry; and the Ministry of Power and the British Productivity Council sponsor the National Industrial Fuel Efficiency Service. The Ministry of Agriculture, Fisheries and Food provides a number of advisory services which aim at encouraging the efficiency of the farming industry in England and Wales; similar services are provided by the three Scottish agricultural colleges.

Management

During the present century and particularly during and since the second world war, the increasing pace of technical, organisational and social change has made the successful conduct of enterprises dependent on knowledge of, and practice in, a complex of managerial techniques for dealing with technical and human problems. There has, therefore, emerged in Britain, as elsewhere, a growing awareness of the importance of management as a subject requiring special skills and knowledge. This has been reflected both in a change in the general educational qualifications of recruits to management and in the spread of systematic education and training for management.

Before the war the manager with a university degree was the exception, apart from senior managers in large firms, while a high proportion of junior managers had left school at fourteen and had worked their way up to responsible positions without formal education or training in management. Today most large and many other businesses recruit graduates and arrange for their systematic training in the various techniques of management. Moreover, progressive firms have comprehensive programmes of management development to fit the senior staff for wider responsibilities.

Many organisations are contributing to the growing knowledge and appreciation of the wider functions of management. They include institutes, societies and firms concerned with specialist subjects of interest to managers, such as industrial psychology, industrial welfare or aspects of industrial efficiency; associations of those who work in particular fields of management, such as sales managers; industrial associations of all kinds, including such central bodies as the FBI, the NABM, the BEC and the TUC; and professional bodies whose members may be managers or directors or those who work closely with them, such as accountants or engineers. The professional engineering

institutions, for example, include industrial administration in the syllabus of their qualifying examinations.

The British Institute of Management (BIM) was founded in 1947, with Government support, to study and promote improved standards of management throughout industry, commerce, and public administration. It is now entirely financed from industrial and professional subscriptions. The main objects of the BIM, which combined in 1957 with the Institute of Industrial Administration, are to provide information on, and undertake research into, management practices and techniques, and to encourage the development of education and training for management on a national scale.

Education for management is developing mainly in four ways:

- (1) national schemes for England and Wales and for Scotland are administered by the BIM in co-operation with the Ministry of Education and the Scottish Education Department respectively; in addition to intermediate awards in business administration, there are, at a higher level, diplomas in management studies awarded on the basis of examinations;
- (2) independent courses organised by universities, other educational establishments, professional organisations, industrial consultants, and certain centres specialising in management training (such as the Administrative Staff College, at Henley-on-Thames, and Ashridge College, in Hertfordshire);
- (3) training courses organised by employers' associations and various voluntary bodies; and
- (4) formal courses and informal training within individual firms, some of which have their own residential centres.

The growing number of firms and individuals working as management consultants—more than 1,550 in 1962—and the use of the services of independent management selection firms in the appointment of senior staff are indications of the interest in the science of management in Britain.

Monopolies and Restrictive Practices

Competition in trade and industry is sometimes restricted either by agreements (formal or informal) between suppliers, or by monopolies which dominate the market; legislation in force in the United Kingdom for dealing with these problems is described below.

The Restrictive Trade Practices Act, 1956, provides for the registration and judicial examination of restrictive agreements. It requires the entry in a public register of the particulars of a wide range of restrictive agreements (including those relating to common prices, approved lists of dealers and the limitation of production) which affect the supply or processing of goods for the United Kingdom market. The Registrar of Restrictive Trading Agreements is responsible for keeping the register and for bringing the agreements before the Restrictive Practices Court set up under the Act. The court, which includes laymen but is presided over by one of Her Majesty's judges, is, in effect, responsible for deciding whether or not an agreement is in the public interest. If the parties to an agreement fail to satisfy the court that any restriction in their agreement produces one or more of seven beneficial effects set out in the Act, and that the restriction is not unreasonable, having regard to the balance between the benefit it confers and any public detriment likely to result from its operation, that restriction must be found contrary to the public interest. Agreements are void in respect of restrictions so found. The court can make orders preventing the parties from operating their agreement, or from making new arrangements having the same

effect. Agreements relating exclusively to exports are not subject to this procedure but have to be notified to the Board of Trade.

The first full hearing before the court took place in October 1958. By the end of June 1961 the register contained particulars of 2,350 agreements. Of these, over 1,065 had been abandoned or had had all restrictions removed from them, while 78 agreements had been the subject of decisions of the court. In 62 cases the agreements had not been defended and the restrictions were, therefore, found contrary to the public interest. Of the 16 agreements defended, 13 had been found wholly or largely contrary to the public interest.

One form of restrictive practice, the collective enforcement of resale price maintenance by the use of stoplists or boycotts, was prohibited outright by the 1956 Act. On the other hand, the Act strengthened the powers of individual suppliers to enforce their resale prices through the civil courts.

Monopolies and kindred arrangements which are not within the scope of the Restrictive Practices Court in the circumstances indicated in the Monopolies and Restrictive Practices (Inquiry and Control) Act, 1948, may be referred by the Board of Trade to the Monopolies Commission for investigation and report. Production departments take appropriate action on the basis of these reports but no order can be made without the approval of Parliament. Prior to the passing of the 1956 Act the commission had investigated a number of industries, several of which modified their practices in accordance with its recommendations. The 1956 Act excluded from the scope of the commission's work agreements which had to be registered under the new legislation. It is now mainly concerned with the investigation of monopolies. Since 1948 the commission has presented some 24 reports.

In January 1962 it was announced that the Board of Trade was reviewing the legislation on monopolies and restrictive practices.

FUEL AND POWER

The main primary sources of energy currently used in Britain are coal, petroleum and, to a small extent, water power, nuclear energy and colliery methane; secondary sources produced from these are electricity, gas and coke.

Coal, mined within the country, supplies nearly three-quarters of primary energy and it will remain the principal source for many years to come. For supplies of crude petroleum Britain is virtually dependent on imports. Water power resources are small. A large-scale programme is in hand for the construction of nuclear power stations.

The pattern of primary energy consumption has shown marked changes in recent years, as shown in Table 14. While consumption of coal has tended to fall, that of oil has risen considerably—from 15 per cent of total inland energy consumption in 1957 to over 26 per cent in 1961. Of the primary fuels consumed, more than half the coal and one-sixth of the oil are converted into secondary fuels.

The fuel and power industries, with the exception of petroleum, are under public ownership. General responsibility for ensuring the effective and co-ordinated development of fuel and power resources lies with the Minister of Power. Fuel research is undertaken by the fuel and fuel-using industries. The Minister of Power has an Advisory Council on Research and Development.

In general, fuel and power industries require heavy capital investment in long-term projects and both internal resources and borrowing are used to raise the large sums needed. Until 1956 long-term borrowing by the corporations was mainly through the issue of stock, except in the case of the coal industry, which borrowed direct from the

Exchequer. There were also special loans from non-government sources as well as temporary advances from the commercial banks. Under the Finance Act, 1956, all the corporations were given power to raise money by means of Exchequer advances from the responsible minister with the approval of the Treasury. These powers were extended and amended by the Finance Act, 1958, and by other Acts. Since 1956 all the corporations have obtained their long-term capital by loans from the Exchequer and issues of stock have been suspended.

Investment by the nationalised fuel and power industries in 1962-63 amounted to £534 million¹. In 1961 it accounted for about one-quarter of public investment and about one-ninth of all fixed investment.

TABLE 14
INLAND CONSUMPTION OF FUEL AND POWER
(in terms of primary sources of power)

Million tons coal equivalent

	1957	1958	1959	1960	1961
Coal	207.6	198.6	186.6	195.5	190.0
Oil	36.7	47.2	56.0	65.5	70.8
Hydro-power	1.5	1.4	1.4	1.6	2.0
Nuclear energy	0.2	0.2	0.6	1.1	1.3
Colliery methane	0.03	0.1	0.1	0.2	0.2
TOTAL	246.0	247.5	244.7	263.9	264.3

The Minister of Power is required by statute to ensure the protection of consumers of fuel. Consultative councils were established for coal in 1947, for electricity in 1948 and for gas in 1949. The councils each consist of a chairman and from 20 to 30 unpaid members. These are appointed by the Minister from nominations put forward by interested bodies selected by the Minister for representing consumers. In the electricity and gas supply industries councils and committees have been formed on an area and district basis; for coal there are councils at national level only. Energy consumption by domestic users, in common with other users, has been steadily increasing, the share of oil rising and that of coal slightly decreasing.

COAL

Coal has been worked in Britain for over 700 years and an organised coalmining industry has been in existence for over 300 years, some 200 years longer than in any other European country. British coal exports dominated the world market until about 1910. By 1913—the peak production year—the industry was producing 287 million tons of coal, exporting 94 million tons and employing over a million workers.

The very fact that the British industry was developed so early has meant that many of the best seams of coal are now worked out; every year coal has to be mined from deeper and thinner seams and productivity can be maintained only by a high level of investment.

¹ *Government Expenditure Below the Line. Cmnd. 1680.*

The industry declined during the first world war owing to shortage of manpower and of the plant and materials necessary for undertaking any mechanical improvement. Moreover, alternative sources of energy and lower prices in other countries led to a later decline in exports, which had fallen to 67 million tons by 1925.

Attempts to secure economies through amalgamation date from the Sankey Commission of 1919. In 1930 a Coal Mines Act established commissioners to bring about the formation of larger and more efficient units. The Coal Act of 1938 transferred ownership of royalties from mineral coal to the State. During the second world war the industry was under Government control.

The National Coal Board

The Coal Industry Nationalisation Act, 1946, brought the industry under public ownership; by this Act, all its assets—coal mines, mineral rights and ancillary undertakings—were vested on 1st January, 1947, in the National Coal Board (NCB), which became responsible for the industry's management, compensation being paid to the former owners. Under the Coal Industry Act, 1949, the board, which is appointed by the Minister of Power and is responsible through him to Parliament, consists of a chairman and not fewer than eight or more than 11 other members.

The National Coal Board has the exclusive monopoly to mine coal in Great Britain, though it may license privately owned undertakings to work small mines not employing more than 30 underground workers, and also to work opencast sites where the total output is not expected to exceed 25,000 tons. Its policies must be directed to ensure that on an average of good and bad years its outgoings do not exceed its revenues.

The NCB is responsible for its own regional organisation. The main collieries, numbering about 669, are grouped into 47 areas which are the basic units for commercial management; their size varies according to geological, geographical and other technical considerations. The areas are grouped into nine divisions which roughly correspond to the main coal-bearing regions. A divisional board for each division supervises and co-ordinates the work of the areas (except in the small south-eastern division, which is administered by a general manager), formulates divisional policy, and is answerable to the NCB, which is responsible for questions of national policy, finance and the co-ordinating of major schemes of development. The day-to-day work of running the collieries is under the direction of colliery managers. The NCB, however, has no monopoly of sales or distribution. It makes some direct sales to large consumers and also retail sales in a few areas. Most retail distribution is in the hands of private firms.

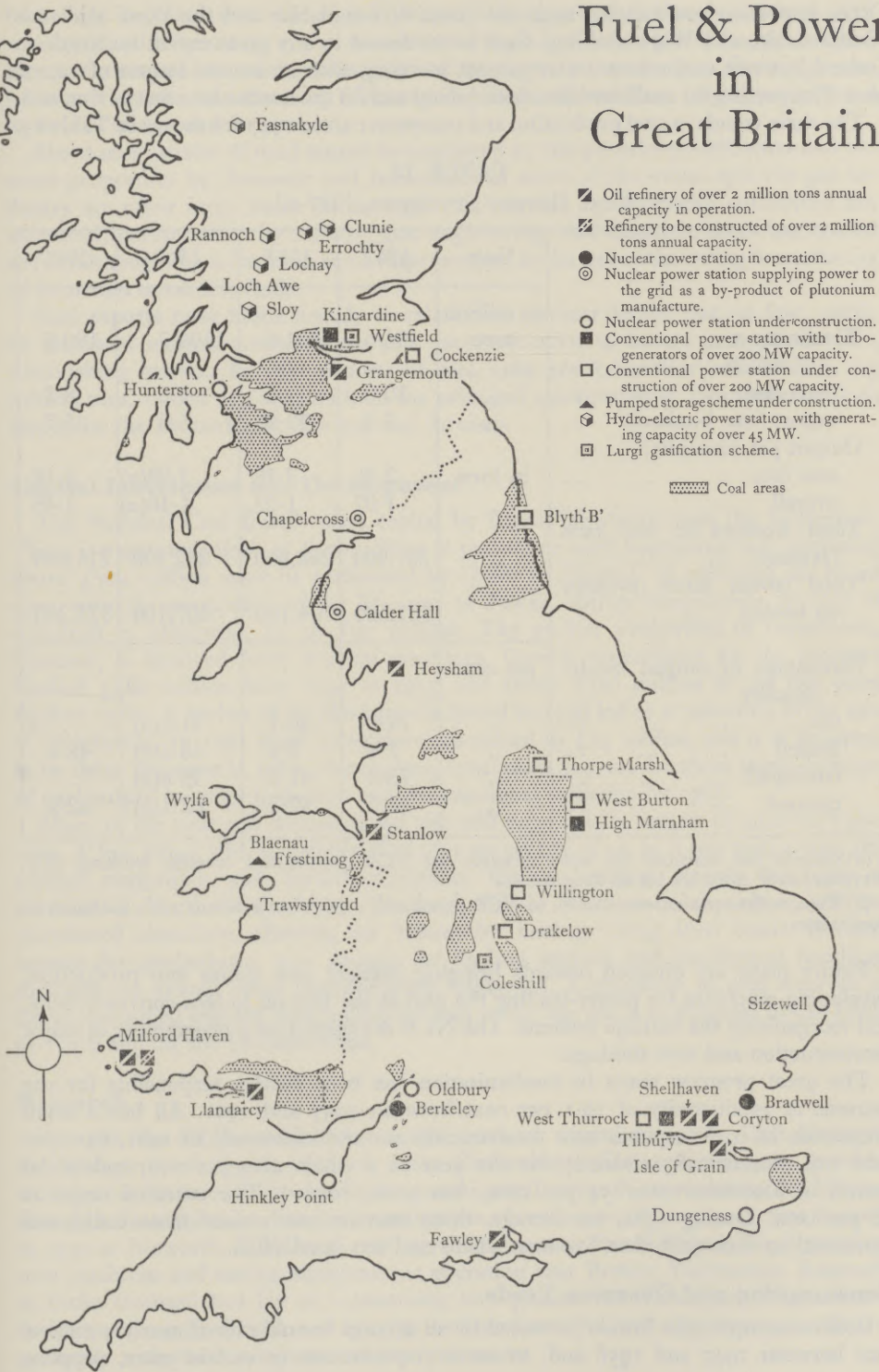
In its first year, 1947, the NCB had a deficit of £23.3 million, and since then has made surpluses in some years and deficits in others. In certain areas, such as Scotland, Lancashire and South Wales, deficits have been persistent, and profits from areas of high productivity, for instance the East Midlands, have not been sufficient to cover the losses. The cumulative deficit at the end of 1961 amounted to £93 million.

Production and Manpower

It has been estimated that Britain's workable reserves of coal will last for about 400 to 500 years at current rates of consumption. But certain types such as high-quality coking coal will be exhausted long before then unless they are eked out by blending with other types of coal.

The main coal-bearing areas are: (1) the Yorkshire, Derbyshire and Nottinghamshire field, which produces about 45 per cent of the total output, (2) the Durham and Northumberland field, (3) the South Wales field, and (4) the Scottish field.

Fuel & Power in Great Britain



- ▨ Oil refinery of over 2 million tons annual capacity in operation.
- ▧ Refinery to be constructed of over 2 million tons annual capacity.
- Nuclear power station in operation.
- ⊙ Nuclear power station supplying power to the grid as a by-product of plutonium manufacture.
- Nuclear power station under construction.
- Conventional power station with turbo-generators of over 200 MW capacity.
- Conventional power station under construction of over 200 MW capacity.
- ▲ Pumped storage scheme under construction.
- ⊕ Hydro-electric power station with generating capacity of over 45 MW.
- ▣ Lurgi gasification scheme.

⋯⋯⋯ Coal areas

Other important coal-bearing areas are those of Lancashire and the West Midlands (Staffordshire and Warwickshire). Coal is not found to any great extent in Northern Ireland but two coal mines are at present working, with an annual output of 12,000 tons. Prospecting for coal continues both inland and off the north-east coast of England.

The main trends in coal production and manpower since 1947 are shown in Table 15.

TABLE 15
COAL OUTPUT STATISTICS, 1947-61

	Unit	1947	1955	1960	1961
Total output	in million tons	196.6	221.6	193.7	190.5
of which					
open-cast	„	10.0	11.4	7.6	8.5
export (inc. bunkers) ..	„	5.3	13.9	5.6	5.7
Output per manshift:					
coal face	in tons	2.86	3.28	3.98(a)	4.18
overall	„	1.07	1.23	1.40(a)	1.45
Total workers at coal face (average)		287,900	288,900	232,300	216,600
Total labour force (average on books)		701,500	704,100	607,100	575,200
Percentage of output mechanically	per cent				
cut	„	74.9	86.1	91.6(b)	..
loaded	„	2.4	9.8	38.2(b)	48.4
conveyed	„	75.3	91.5	95.8(b)	..
cleaned	„	48.2	57.3	62.1(b)	62.2

(a) Output per manshift for 1960 onwards for NCB deep-mined revenue working only. Previous years' rates are for all deep mines.

(b) Figures for 1960 onwards relate to NCB mines only; those for previous years included all deep mines.

Future plans are directed towards bringing efficient new mines into production, developing machines for power-loading the coal at the face on to face-conveyor belts, and reorganising the haulage systems. The NCB is engaged on a programme of major reconstruction and new sinkings.

The great progress made in mechanisation has been mainly responsible for the increase in productivity of 16.1 per cent between 1957 and 1961. All but a small proportion of coal output is now mechanically cut and conveyed. In 1961, 62.2 per cent was mechanically cleaned; for the year as a whole 48.4 per cent, and in the month of December over 54 per cent, was power-loaded. The eventual target is 80 per cent. During 1961, on average, three men on mechanised faces could win more coal on each shift than five men where coal was hand-filled.

Consumption and Overseas Trade

Coal consumption in Britain increased by an average annual rate of nearly 4 million tons between 1947 and 1956 and, to cover requirements in certain years, supplies

had to be imported from the United States. Inland sales fell sharply between 1956 and 1959, and large stocks of coal accumulated at pit heads; in 1960 and again in 1961, however, demand exceeded production and stocks were drawn upon. Growing competition from oil and increasing efficiency in the use of coal have largely contributed to the fall in demand for coal.

About one-quarter of total output is consumed by the electricity authorities and the same proportion by domestic and miscellaneous users. Coke ovens and the gas industry are other large users. Since 1958 consumption by electricity authorities has increased; consumption by railway, gas, engineering, and domestic users has tended to fall, although there has been some improvement in the last outlet owing to marketing of improved smokeless fuels.

Coal exports have fallen heavily in relation to pre-war levels, due, at first, partly to increased internal consumption and, more recently, to keener competition in a diminishing market. In 1961 exports of coal, coke and briquettes amounted to 5.5 million tons, valued at £29.3 million, the principal markets being Denmark, the Irish Republic, the Netherlands, Norway and Sweden.

Capital Investment and Development

The National Coal Board raises capital by borrowing direct from the Exchequer. There is a statutory limit of £750 million at present on such borrowing and borrowing above £700 million must be authorised by Order in Council. In addition, the board may, with the permission of the Minister of Power, borrow temporarily, by way of overdraft or otherwise, up to £20 million. The greater proportion of investment, however, is financed from internal resources. Capital expenditure by the industry totalled £462 million from 1947 to 1955, and about £500 million in the five years 1956 to 1960. A review of its plans by the board in 1959 led to a reduction in the rate of investment. In 1961 fixed investment amounted to £93 million and it is expected to be about the same in 1962. Present long-term plans provide for about three-quarters of coal output to come from new and reconstructed collieries by 1965.

Many of the new and reconstructed pits will have a daily output of 4,000 to 6,000 tons. A few mines will be combined to give an output of up to 8,000 tons a day, the highest compatible with British conditions. Horizon mining, already the basis of schemes in North Staffordshire, Scotland, South Wales and Lancashire, will be introduced elsewhere, allowing for locomotive haulage along level roads. Revised layouts for pit-bottoms, new designs for loading stations and mechanical handling methods are among other improvements envisaged. Exploration of coal reserves is being intensified and the first boring for coal under the sea is in progress in the Firth of Forth and off the Durham coast.

Research

In 1948 the NCB established a central research organisation, the Coal Research Establishment, at Stoke Orchard, near Cheltenham, Gloucestershire, to provide facilities for fundamental research. A second central research organisation, the Mining Research Establishment, for the investigation of underground problems, was formed in 1952 at Isleworth, Middlesex. A Central Engineering Establishment for developing new machines and testing equipment is operating near Bretby, Derbyshire. Research at Stoke Orchard had led to a promising new process for the making of smokeless briquettes from small coal, and in 1959 the board set up a new department concerned primarily with the development of new processes.

The NCB also subscribes to a number of autonomous research associations in receipt of grants from the Department of Scientific and Industrial Research (DSIR), including the British Coal Utilisation Research Association, the British Coke Research Association and the Coal Tar Research Association. In addition, much of the work of other bodies, such as the Safety in Mines Research Establishment of the Ministry of Power, is closely related to the board's problems. In 1947 the NCB took over, with other assets, the Coal Survey, a national organisation for surveying coal resources within Britain, and 70 laboratories (in the various coalfields), which it has since extended and modernised.

PETROLEUM

The petroleum industry in Britain dates back to 1850, when Dr. James Young, a Glasgow chemist, succeeded in obtaining lamp oil and lubricants from natural mineral oil occurring in the Derbyshire coal measures. The Scottish shale deposits, yielding similar products, were first worked in 1858.

Indigenous Production

Sources of crude oil within Britain (including oil extracted from shale) supply altogether less than three per cent of total United Kingdom requirements, the remainder being imported from overseas.

Prospecting for crude petroleum has so far led to the establishment of several small oilfields, notably in Nottinghamshire (Eakring, Egmonton and Bothamsell), in Leicestershire (Plungar), in Lincolnshire (Gainsborough), in Lancashire (Formby) and in Dorset (Kimmeridge). Annual production of crude oil from indigenous oilfields totals over 100,000 tons. Prospecting by seismic methods in the North Sea started in 1962.

Crude oil is extracted from shale at five shale mines and one opencast quarry and retorted in two crude-oil works. Output of shale reached a peak of 3.4 million tons in 1913 but has been steadily falling since 1960; production amounted to some 468,000 tons in 1961, yielding about 43,000 tons of crude shale oil. From the latter, some 41,000 tons of refined products were obtained. Some 300,000 tons of refined benzole are derived from coke ovens and gas-works.

Indigenous crude oil both from shale and from oil wells is refined at Pumpherstons, near Edinburgh.

International Trade

British and British-Dutch oil companies have been responsible for developing the oil resources of many countries to mutual advantage, especially in the Middle East, Far East and Caribbean areas.

Today these companies produce about one-third of all oil entering into international trade, with a tanker fleet (partly owned by them and partly on charter) amounting to nearly one-third of the world's tanker tonnage. (United Kingdom registered tanker tonnage is nearly one-sixth of the world's total.)

In 1961 the United Kingdom imported 49 million tons of crude oil valued at £351 million; nearly half came from Kuwait, the other largest suppliers being Iraq, Venezuela, and Iran, in that order.

Consumption

Inland consumption of petroleum products in the United Kingdom, apart from a slight drop in 1957, has been expanding rapidly and in 1961 reached over 46 million

tons. An outstanding feature has been the continued rapid advance in use of black oils. Fuel oil consumption rose from 6.9 million tons in 1957 to 18.8 million tons in 1961. The introduction of a duty on heavy oils in the 1961 Budget retarded the rate of growth slightly. Nevertheless the demand for gas and diesel oils (excluding that used in road vehicles) rose 11.5 per cent to about 3.9 million tons. Sales of motor spirit in recent years have been rising by about half a million tons a year and reached 8.1 million tons in 1961.

A more detailed analysis of deliveries of gas and diesel oils for 1961 shows that their most important uses were for non-industrial central heating, agricultural tractors and the railways. Electricity generation accounted for about 30 per cent of total fuel oil consumption, excluding that used in oil refineries; steel used 14 per cent and non-industrial central heating a further 10 per cent. Among the remainder the largest users were the cement, paper-making, general chemical and fishing industries. Use of most other products increased in 1961 except for burning and vaporising oils.

Refineries

Before 1939 three-quarters of the United Kingdom's supply of petroleum products was refined overseas, as it was considered more economical to refine at the source of production. Since the second world war, however, the industry has come to favour the siting of refineries in the consuming areas.

By the end of 1961 refinery capacity in the United Kingdom exceeded 50 million tons a year. Of the 16 refineries in operation, six have a capacity of under 0.2 million tons. The largest, all of which have been considerably extended, are situated at Fawley, near Southampton (12 million tons), Shellhaven (8 million tons), Isle of Grain (9½ million tons), both on the Thames Estuary, Stanlow (5 million tons), in Cheshire, and Milford Haven, in Pembrokeshire (4½ million tons). A second refinery, of 5 million tons a year capacity, is to be built at Milford Haven and others, at Belfast and on Tees-side, are under construction.

Output of refined products (excluding refineries' own consumption) rose from 4 million tons in 1948 to the record total of 45 million tons in 1961. There is a substantial external trade in refined products which tends to follow trading and seasonal requirements and the commercial arrangements of the oil companies. United Kingdom exports, mainly in the form of heavier products to European countries, were valued at £90 million in 1961; imports of refined products amounted to £139 million.

Oil Pipelines

Three major oil pipelines are at present in operation in Britain. Two of these—one in Scotland (from Finnart on Loch Long to Grangemouth) and one in South Wales (from Angle Bay, Milford Haven, to Llandarcy)—carry crude oil from harbours capable of berthing very large tankers to refineries; and one, from Walton-on-Thames to London Airport, carries aviation fuel. In addition a pipeline from the Shellhaven refinery to Romford gasworks carries refinery gas and gas-making products. The major oil companies are planning pipelines to take refined products from refineries to major marketing areas, where the volume transported is sufficient to justify the capital cost. A pipeline has been constructed to carry refined products between Stanlow, Cheshire, and Urmston, near Manchester; another, 78 miles long, is being built to take petroleum feedstock from Fawley refinery to the £100 million petroleum chemicals project at Severnside, near Bristol; and another is to transport aviation fuels from Fawley to London Airport. Meanwhile, parts of the system of pipelines laid during the second world war are being used by the petroleum distributing companies. In 1962 the

Oil Pipelines Act was passed to secure the orderly development of privately owned industrial pipelines.

Research

Research into problems of petroleum technology is carried out mainly by the leading oil companies, which have also endowed research at the universities on a substantial scale. Research centres are situated at Sunbury-on-Thames (the British Petroleum Company), Thornton, in Cheshire, and Woodstock, in Kent (Shell), and Abingdon, in Berkshire (Esso). Research covers the evolution of new and improved lubricants and the development of new uses for oil and of new products based on oil, especially chemicals.

ELECTRICITY SUPPLY

A public supply of electricity was first provided in 1881, at Godalming, Surrey, though there were earlier demonstrations of its use to consumers, such as the lighting of the Thames Embankment by the former Metropolitan Board of Works. From its earliest days a measure of public control has been a feature of the industry, and the Electric Lighting Act, 1882, authorised the Board of Trade to grant licences for the establishment of electricity undertakings by local authorities or by companies (which the local authorities might compulsorily purchase after a given period of time) to supply consumers in given areas. By the turn of the century, technical developments, including the introduction of the electric motor as a source of motive power, had led to a large increase in the scale of distribution of electricity, and a variety of independent supply systems had grown up all over the country.

After the first world war steps were taken to reorganise the industry on a national scale. In 1919 the Electricity Commissioners were set up as a supervisory body and to promote reorganisation through voluntary agreement. Then, in 1926, the Central Electricity Board was established to co-ordinate more efficiently the generation of electricity. Its main duties were to concentrate the output of electricity in certain stations, selected for their efficiency and low operating costs, and to connect these selected stations with one another and with local distribution undertakings by means of a national system of main transmission lines, known as the 'grid'. Steady progress was made in putting this plan into effect and, by March 1948, 143 selected stations, out of some 300, were supplying 95 per cent of the electricity generated for public supply.

Organisation under Public Ownership

Under the Electricity Act of 1947, a central authority, then known as the British Electricity Authority, and 14 Area Electricity Boards took over in April 1948 the assets of former municipal and private electricity supply undertakings throughout Great Britain, except in the area already served by the North of Scotland Hydro-Electric Board (see p. 283). Under the Electricity Reorganisation (Scotland) Act of 1954, the authority's functions in Scotland were taken over in April 1955, by the South of Scotland Electricity Board (see p. 283). The name of the authority was changed from British Electricity Authority to Central Electricity Authority and the number of area boards was reduced to 12.

On 1st January, 1958, under the Electricity Act, 1957, the Central Electricity Authority was dissolved and replaced by two new bodies, the Electricity Council and the Central Electricity Generating Board.

The present organisation of the electricity supply industry, in which more than 220,000 people are employed, is described below.

England and Wales

The *Electricity Council*, the central body of the industry, is composed of a chairman, two deputy chairmen, not more than three other persons, and the chairman and two other members of the Central Electricity Generating Board, and, *ex officio*, the 12 chairmen of the Area Electricity Boards. The main functions of the council are to advise the Minister of Power on matters relating to the electricity supply industry. The council is responsible for a number of common services, including capital financing and research.

The *Central Electricity Generating Board* consists of a chairman and not fewer than seven, nor more than nine, other members. The board has taken over certain of the executive functions of the former Central Electricity Authority in England and Wales: i.e. to generate or acquire supplies of electricity and to provide bulk supplies to the area boards.

The *Area Boards* (of which there are at present 12) are responsible for the distribution and sale of electricity. Each consists of a full-time chairman and deputy chairman and five to seven members (mostly part-time).

Area Consultative Councils were set up under the Electricity Act, 1947, in the area of each board to represent the interests of consumers; their chairmen are *ex officio* members of their respective Area Boards.

The most important functions of the Minister of Power in England and Wales under the new arrangements are: to appoint the chairmen, deputy chairmen and members of the Electricity Council, the Central Electricity Generating Board and the Area Boards; to approve each area board's capital development programmes and the industry's research programme; and to approve, in consultation with the Treasury, the boards' borrowing requirements.

The Central Electricity Authority (and its successors the Electricity Council and the Central Electricity Generating Board) together with the Area Boards, have made a consolidated net surplus on their operations in each of the years since they were established. Up to and including the financial year 1960-61, these surpluses amounted in the aggregate to over £165 million. Under the 1957 Act, each electricity board, not merely the industry as a whole, must pay its own way, taking one year with another.

Scotland

The *North of Scotland Hydro-Electric Board* was set up in 1943 as a public corporation to develop the water-power resources of the Highlands and Islands and to distribute electricity in the more sparsely populated parts of Scotland not covered by existing undertakings. The board consists of a chairman, and not less than four nor more than eight other members, of whom one or more may be appointed deputy chairman, appointed by the Secretary of State for Scotland.

The Act of 1947 made the North of Scotland Hydro-Electric Board solely responsible to the Secretary of State for Scotland for all generation and distribution in its area. This area was extended under the Act to include that part of Scotland north and west of a line running roughly from Dumbarton on the Firth of Clyde to Newburgh on the Firth of Tay.

On 1st April, 1955, the *South of Scotland Electricity Board*, answerable to the Secretary of State for Scotland, took over the then British Electricity Authority's functions in Scotland, and also the functions of the two area boards in the south

of Scotland, which were dissolved. The board consists of a chairman, and not less than four nor more than eight other members, of whom one or more may be deputy chairmen, appointed by the Secretary of State for Scotland.

A consultative council to represent the interests of consumers has been appointed for the district of each board by the Secretary of State.

Northern Ireland

In Northern Ireland electricity is generated at power stations in Belfast and Londonderry and at Ballylumford and Coolkeeragh. Those in Belfast and Londonderry are owned and operated by the city corporations and the remainder by the *Electricity Board for Northern Ireland*. Generation at these stations is co-ordinated by the *Northern Ireland Joint Electricity Committee*, set up by statute in 1948, which purchases their output and resells it to distributors—the Belfast Corporation, for Belfast and district, the Londonderry Corporation for the City of Londonderry, and the Electricity Board for the rest of Northern Ireland.

Generation

Most of Britain's electricity is produced in coal-fired steam generating stations. The country has abundant supplies of coal, together with good rail and water transport for moving it, while water-power resources are relatively small and in remote areas. The development of hydro-electricity on any scale is comparatively recent.

The installed generating capacity of the electricity authorities (including the North of Scotland Hydro-Electric Board) in Great Britain at the end of 1961 totalled 33,915 megawatts (MW), an increase of about 38 per cent since 1956. In recent years about 2,000 MW of new plant has been commissioned each year but in the period up to 1966 this will be increased to over 3,000 MW a year.

Sales of electricity in Northern Ireland (where of the total installed generating capacity of 689 MW, 120 MW is in oil-fired and the remainder in coal-fired thermal stations) amounted to 1,536 million kilowatt-hours in 1961.

In 1961 over 124,000 million kilowatt-hours, or slightly under 98 per cent of the public supply in Great Britain, was generated at conventional thermal stations, and almost all the remainder from water-power. The high rate of expansion of output, which has been a feature of the industry since its earliest years, has been maintained since the war. Total production in 1961 was nearly 12 times that of 1930, and had increased by about 50 per cent since 1956.

An analysis of electricity generation in Great Britain is given in Table 16.

In the mid-1950s, when a coal shortage seemed likely, programmes for oil-firing at conventional thermal stations and for generating from nuclear energy were introduced. There are thirteen oil-burning power stations, or parts of stations, operating in Great Britain. They are mainly situated on river estuaries and thus able to be fed conveniently from nearby oil refineries.

Conventional Thermal

The electricity authorities are the largest consumers of primary fuel in Britain, and although most of their electricity generation is based on coal, oil consumption rose from a negligible quantity in 1955 to over 5½ million tons in 1961. Average thermal efficiency of conventional steam stations in England and Wales (i.e. the ratio of power output to the fuel consumed) rose from 20.75 per cent in 1947 to 27.24 per cent in 1961 as new plant was brought into use. Twenty stations containing much of the newest plant had an average efficiency of 32.31 per cent in that year.

The largest generating sets in operation are the 200 MW set at High Marnham, in the east Midlands, and a set of 275 MW capacity at Blyth 'B' station in Northumberland. In 1963 a 550 MW set is due to come into use at Thorpe Marsh, near Doncaster. These large machines will show substantial economies in capital cost, in fuel consumption and in operational costs. Station capacities are also increasing; the largest stations under construction are the West Burton station, near Gainsborough, Lincolnshire, due for completion in 1967, which will have an ultimate capacity of 2,000 MW and will use generating sets of 500 MW, and two further stations of similar size to be built in Yorkshire. A station at Cockenzie, in Scotland, will have four 300 MW generating sets.

TABLE 16
ELECTRICITY GENERATION FOR PUBLIC SUPPLY IN GREAT BRITAIN, 1961

	Output capacity		Electricity sent out	
	MW		million kWh	
Central Electricity Generating Board ..	28,656	31,526	110,400	120,063
South of Scotland Electricity Board ..	1,819		6,754	
North of Scotland Hydro-Electric Board	1,051		2,909	
Steam	30,226		116,722	
Oil engines	122		155	
Hydro plant	1,178		3,186	
TOTAL		31,526		120,063

Hydro-Electric

The setting up of the North of Scotland Hydro-Electric Board in 1943 marked the beginning of an era of intensive water-power development in the Highlands of Scotland. A development scheme drawn up by the board in 1944, showing the water-power resources which it proposed to examine, listed 102 hydro-electric projects with an estimated annual output of 6,274 million units of electricity. In 1961, 2,733 million units were generated by the North of Scotland Board from water-power, compared with 322 million in 1949. At the end of 1961 there were 44 main hydro-electric stations in operation in the north of Scotland with a total installed capacity of 885 MW and the largest—the Loch Sloy station—had a capacity of 130 MW; further hydro-electric schemes with a total installed capacity of 563 MW were under construction, including 400 MW of pumped storage in the Loch Awe scheme, and a further 579 MW were under consideration. The board also had 171 MW of coal and diesel-fired capacity. In addition, there are stations generating electricity by water-power in the south of Scotland (123 MW) and in Wales (175 MW).

Nuclear Power Stations

As an extension of its experimental work and to produce plutonium, the Atomic Energy Authority (AEA) has two stations which also produce electricity—at Calder Hall, Cumberland, and Chapelcross, Dumfriesshire, both of about 180 MW output

capacity. The first started operating in May 1956 and was officially connected to the grid by the Queen in October of that year; the second, Chapelcross, started supplying electricity in February 1959. These two nuclear power stations are supplying 2,000 million units of electricity annually for the national grid.

The main commercial stations under the Government's nuclear power programme are being built for the electricity authorities by groups of engineering firms specially organised for the construction of nuclear power plants.

Special factors have to be taken into account in the siting of the nuclear power stations, notably the need for firm rock foundations to bear the weight of the reactors and their supporting structure, a location distant from heavily built-up areas, and plentiful supplies of water for cooling. Great care is taken to preserve amenity and landscape beauty.

Eight stations are under construction; all, with a total output capacity of some 3,500 MW, should be completed before the end of 1967. In 1960 the Government announced modifications in the earlier programme, to take account of the fact that coal had become plentiful and oil supplies had also improved. The intention now is to place orders for about one station a year. As it is expected that it will be possible to increase the capacity of stations over the years, there will be a steady rise in the rate of commissioning nuclear generating capacity, which should total about 5,000 MW in 1968.

The stations at Bradwell (300 MW output capacity), in Essex, and at Berkeley (275 MW), in Gloucestershire, begun in January 1957, came into full operation in the summer of 1962. Hinkley Point (500 MW), in Somerset, should be in operation in 1963. Hunterston (300 MW), in Ayrshire, and Trawsfynydd (500 MW), in North Wales, and Dungeness (550 MW), in Kent, should all be in operation in 1964, and Sizewell (580 MW), in Suffolk, in 1966. A station at Oldbury-on-Severn, Gloucestershire (550 MW), is due for completion in 1966. Consent has been given for a ninth station, of about 800 MW, at Wylfa, Anglesey, and for an additional station at Hinkley Point of 1,000 MW, and sites for additional stations are being considered.

Pumped Storage

In order that generating stations, especially nuclear stations with their higher capital costs and lower operating costs, should be run as continuously as possible, pumped storage schemes are being developed. In these schemes, electricity generated in off-peak periods is used to pump water to higher levels from which it descends at peak periods to operate turbo-generators. The 300 MW pumped storage station at Blaenau Ffestiniog, near Trawsfynydd, in North Wales, is the largest in the world. It started operating in 1961 and will be completed in 1963; suitable sites for other schemes are being investigated. The first large-scale pumped storage works in Scotland, comprising a 400 MW combined pumping and generating plant costing some £24.5 million, forms part of the Loch Awe project, and is expected to come into operation in 1965.

Sites in Northern Ireland suitable for this type of project have been surveyed.

Transmission and Distribution

Main electricity transmission lines—the National Grid—cover most of the country. In 1961 those of the Central Electricity Generating Board totalled some 7,600 route miles (12,600 circuit miles), of which 1,500 miles were operated at 275,000 volts, 5,733 miles were operated at 132,000 volts and the remainder at 66,000 volts and below. In Scotland there were 3,100 circuit miles of main transmission lines at the end of

1961, of which 289 circuit miles operated at 275,000 volts and the remainder at 132,000 volts. Energy movements on the grid in England and Wales are controlled through the seven operational areas, set up for that purpose and distinct from the divisions in which the generating side of the industry is organised; each area has a separate control, and the operations are co-ordinated by a National Control in London. The grid in Scotland is operated from the control centres at Tummel Bridge (North of Scotland) and at Kirkintilloch (South of Scotland).

The new 'supergrid' of main transmission lines operating at 275,000 volts is to be up-rated to 400,000 volts, starting in 1965. This is being done to reduce the number of transmission lines needed to meet the country's increasing power demands. The development of the grid system has made the British system the most closely integrated power network in the world. A link interchange of energy by direct current by means of twin cross-Channel cables laid between Dungeness and Boulogne, costing £4½ million, and capable of transmitting up to 160 MW at 200,000 volts (direct current) came into operation in 1961. Its object is to take advantage of the differences between France and Britain in the timing of peak loads.

In England and Wales the Area Electricity Boards distribute to consumers electricity acquired mainly from the Central Electricity Generating Board, but in part from other sources, such as collieries and the nuclear power stations of the AEA. There are 16 million consumers, an increase of about 6½ million on those supplied in December 1939. Industrial concerns are the biggest users of electricity and their demands are increasing rapidly as are those of domestic consumers; the principal domestic uses of electricity are for lighting, cooking, and for space and water heating, but the demand for numerous other domestic purposes is rising steadily.

The North of Scotland Hydro-Electric Board has also pressed ahead with the distribution of electricity to consumers in the north of Scotland. At the end of 1961 it had 400,000 consumers of electricity, many of them in remote areas, and 82 per cent of the farms and crofts had a supply of electricity. At the same date the South of Scotland Electricity Board supplied 1.4 million consumers, including about 95 per cent of the farmers in the area.

Capital Investment

Nearly 8 per cent of the annual gross fixed capital formation of the United Kingdom in 1961 was attributable to the electricity supply industry. Future needs of capital are likely to be heavy. In England and Wales the Electricity Council estimates that the consumption of electricity will rise by an annual average of 8 per cent.

Total capital expenditure of the electricity supply industry in Great Britain from the time of its nationalisation (in 1948) to 31st March, 1961 (in the case of the Electricity Council), and the 31st December, 1960 (in the case of the Scottish Boards), amounted to about £2,950 million, of which about two-fifths had been financed from internal resources. The aggregate outstanding borrowing of the electricity supply industry in Great Britain is limited to £2,675 million (£2,300 million for the Electricity Council, £135 million for the South of Scotland Electricity Board and £240 million for the North of Scotland Hydro-Electric Board). The Government's policy on the financial objectives of the nationalised industries has been set out in the White Paper *Cmnd. 1337*.¹ For the electricity supply industry in England and Wales the objective is a gross return on net assets of 12.4 per cent over the 5 years 1962-63 to 1966-67, involving an aggregate net surplus of £336 million over the period.

¹ *The Financial and Economic Obligations of the Nationalised Industries*. April 1961.

Research

The Electricity Council, in consultation with the Minister of Power, is responsible for drawing up a general programme of research, comprising: direct research carried out by the Electricity Boards themselves; sponsored research undertaken for the supply industry by universities and colleges; and co-operative research with other organisations, in particular the industrial research associations, such as the British Electrical and Allied Industries Research Association, to which the supply industries subscribe. The council itself is empowered to conduct research. It is advised by the Electricity Supply Research Council.

The main research establishment of the industry is the Central Electricity Research Laboratories at Leatherhead, Surrey. Research laboratories of the CEGB concerned with nuclear power were opened in 1961, adjacent to the Berkeley nuclear power station in Gloucestershire.

The Atomic Energy Authority's research into improved types of nuclear power reactors includes work on fast breeder reactors at Dounreay, Caithness; on advanced gas-cooled reactors at Windscale, Cumberland; and on high-temperature gas-cooled reactors at Winfrith, Dorset.

Both Scottish electricity boards are empowered to carry out research and experimental work either on their own or in co-operation with other electricity authorities. The North of Scotland Hydro-Electric Board undertakes a wide range of research and development work, both independently and in conjunction with the British Electrical and Allied Industries Research Association, colleges of science and technology, universities and manufacturers. The South of Scotland Electricity Board has recently extended its own research activities and is associated fully with those of the Electricity Council and Central Electricity Generating Board in England.

GAS SUPPLY

Public supply of gas in Britain dates from 1807, when Pall Mall, London, was first lighted with gas. In 1812 the London and Westminster Gas Light and Coke Company received a Royal Charter to supply gaslight in London. In the early years of the industry gas was used almost exclusively for lighting and was provided by a growing number of company and municipal undertakings. After the invention of the Bunsen burner in 1855 gas was used increasingly as a source of heat for many purposes, such as domestic cooking and space and water heating, in addition to a number of industrial uses. In the last 20 years of the nineteenth century, however, gas for lighting purposes was subjected to competition from the new electricity supply industry; but the invention of the Welsbach incandescent mantle in 1887, which raised the efficiency of gas lighting very considerably, enabled the industry to hold its own, while the use of gas for purposes other than lighting increased.

The gas industry in its present form developed in the main during the period between the two world wars when increasing competition from electricity had to be met and when changes in social habits and outlook were taking place. The industry undertook a large-scale programme of modernisation of production and distribution and launched widespread sales promotion campaigns, especially for the numerous uses of gas in the home. By 1939 the industry had become mainly a supplier of heating instead of lighting.

Organisation under Public Ownership

The Gas Act of 1948 brought the industry in Great Britain, in which about 125,000 persons are at present employed, under public ownership and control on 1st May, 1949.

The assets of 991 undertakings, of which 269 belonged to local authorities, were vested in 12 Area Gas Boards. The central body is the *Gas Council*, appointed by the Minister of Power. It is a co-ordinating council, not a trading body, consisting of a full-time chairman and deputy chairman and the 12 chairmen of the area boards. Its general duties are to advise the Minister on questions affecting the industry and promote the efficient performance of their duties by the area boards. It has also specific duties relating to finance, labour relations and research.

The *Area Gas Boards*, which have a large measure of financial and operational responsibility and are similar in most respects to the central bodies of the other publicly owned corporations, are responsible for manufacturing gas and distributing it to consumers. Each of the Area Gas Boards, appointed by the Minister of Power, consists of a full-time chairman and deputy chairman, in some cases one or more full-time members, and usually five or six part-time members, including the chairman of the Area Consultative Council. There is no common pattern of organisation; each board is fully independent and has devised its own subordinate structure. Each is required to pay its way, taking one year with another. The operations of the area boards have resulted, in the 12 years up to 31st March, 1961, in an aggregate disposable surplus of approximately £25 million, before taxation.

When the industry came under public ownership, a link between it and the consuming public was established by the creation of a *Consultative Council* in each board area. These councils consist of not fewer than 20 and not more than 30 members, of whom between 50 and 75 per cent are chosen from panels of persons nominated by the local authority associations.

In Northern Ireland the gas supply industry remains in the hands of a number of municipal undertakings and statutory and non-statutory companies.

Production

In 1961, in Great Britain, 22 million tons of coal were carbonised by gas undertakings and 26.8 million tons by coke ovens operated outside the gas industry. Nearly one-third of the output of gas from coke ovens is sold to gas undertakings for general distribution; the remainder is mainly consumed at the ovens or at collieries or steelworks. Between 1921 and 1940 the number of consumers increased from 7.6 million to over 11 million. It had risen to over 12.9 million by 1957 and has since fallen slightly. Gas manufactured and acquired from coke ovens and other sources for distribution exceeds 600,000 million cubic feet.

In 1961 the quantity of gas produced in Northern Ireland was almost 7,000 million cubic feet, most of it for household use.

Consumption

Half of all gas is sold by gas boards for household use and the remainder for industrial and commercial purposes. Total consumption has been relatively static in recent years, but the level in 1961 showed an increase over that for 1959, though it was no higher than in 1955.

Domestic Use. About 70 per cent of the domestic load is used for cooking, the remaining 30 per cent being spread over space heating, water heating and other installations. Most homes in Britain are now supplied with gas, except in some rural areas where, owing to difficulties in storage and transmission, gas is not economic. Bottled gas, derived from petroleum, is widely used in rural areas.

Industrial and Commercial Use. Gas is used extensively in industries which require the control of temperatures to a fine degree of accuracy, for example, in the pottery

industry and in certain processes in the manufacture of iron and steel products. In 1961 sales of gas to industry totalled 180,000 million cubic feet.

Coke and By-products

Production of coke at gas works in 1961 was 9.8 million tons, and at coke ovens 17.8 million tons. The gas industry and coke ovens jointly produce about 3 million tons of crude coal tar and over 100 million gallons of crude benzole a year. These latter by-products yield materials widely employed in the newer branches of the chemical industry and also in other industries.

Capital Investment

Under the Gas Act, 1948, borrowing by the Gas Council and the Area Gas Boards was limited to £250 million. In 1954 the industry's borrowing powers were increased to £450 million, and in 1960 to £500 million (or up to £525 million if authorised by Order in Council) in the period up to 31st March, 1966.

The industry in recent years has been spending about £50 million a year on capital investment. Between vesting day (1st May, 1949) and March 1962, about £580 million had been invested in fixed assets. Expenditure of £52.5 million is approved for 1962-63.

Lines of Future Development

The post-war structure of the industry has already permitted considerable integration by the linking of undertakings for the transmission of gas (through gas grids and long-distance mains), enabling production to be concentrated in the most efficient units.

In order to compete fully with other fuels, the gas industry is seeking ways of reducing costs of production. Processes for gasifying coal of inferior quality are being investigated. At Westfield, in Fife, Scotland, a gas plant, costing £6.6 million, and using low grade coal, began production in December 1960, and was completed in 1962. It produces 30 million cubic feet of gas a day, about one-fifth of the total gas requirements of Scotland. The plant marks a change from conventional carbonisation of coal to the use of chemical processes. Because the gas will be made at high pressure, it will be possible to pipe it through a 133-mile grid-main covering industrial Scotland. Further advantages of this method are low costs and the production of by-products such as tar, ammonia and benzole. A similar plant is being erected at Coleshill, near Birmingham.

Alternative sources of gas are being developed by the Gas Council. Gases from oil refineries (butane or propane) are used in several installations in smaller towns remote from large gas works or the grid systems. Progress has also been made with the use of methane, drained from coal mines, and of surplus gases from oil refineries. A number of oil gasification plants have been built. These include a plant constructed by the South Eastern Gas Board adjacent to the British Petroleum Company's refinery at Isle of Grain, Kent, which converts some 70,000 tons of petroleum products a year and has a daily output of 45 million cubic feet of gas. Trial shipments of liquid natural gas were made in 1958 and 1959 from the United States Gulf Coast. The gas, after being stored at Canvey Island, Essex, was modified at the Romford gas works for public use. The Gas Council has since signed a 15-year contract for the purchase of natural gas from the Sahara in specially constructed refrigerated tankers. Deliveries are to start in 1964 and will rise to about 35,000 million cu. ft. of gas annually, equivalent to some 10 per cent of total consumption.

Research

The Gas Council's research organisation consists of a research committee which advises on the initiation and implementation of research policy, two research stations, one in London and one at Solihull, and the Watson House Centre at Fulham, London, for the design, testing and development of appliances. Research is also carried out on behalf of the Gas Council at Leeds University and at other universities and colleges.

FUEL EFFICIENCY

Efficiency in the use of fuel, among both industrial and domestic users, has been assisted by various bodies representing producers and consumers and by the technical advisory services of the fuel and power industries.

The *Coal Utilisation Council* consists of representatives of the National Coal Board, coal distributors and coal appliance manufacturers and distributors. Originally formed in 1932, it informs and advises domestic users on the best use of solid fuel, including the choice of installation and the operation of solid fuel appliances.

A non-profit-making company, the *National Industrial Fuel Efficiency Service*, was formed in 1954 by the fuel and power industries to promote fuel saving in industry. It provides advice and services to all non-domestic fuel users in a variety of forms, from 'spot' inspection to full-scale heat and power surveys and regular visits on a contract basis.

WATER SUPPLY

Britain's water resources are, in general, sufficient for domestic and industrial requirements. The sources of water are often distant from the areas where supplies are needed, however, and water undertakings are therefore mainly concerned with abstraction, storage, treatment and distribution. Supplies are obtained partly from surface sources such as mountain lakes, streams impounded in upland gathering grounds and river intakes, and partly from underground sources by means of wells, adits and boreholes. Unlike other public services in Great Britain, such as electricity and gas, water supply remains in the hands of a large number of undertakings of different kinds. Ministerial responsibility for national water policy rests with the Minister of Housing and Local Government in England and Wales, with the Secretary of State for Scotland in Scotland and with the Minister of Health and Local Government in Northern Ireland.

Organisation of Water Supply in England and Wales

It was not until the nineteenth century that the provision of water supplies became a general public service and then only after long and bitter controversy. It was largely due to the efforts of Edwin Chadwick and his colleagues, who demonstrated the dangers arising from inadequate water supply and sanitation, that the Public Health Act, 1848, became law in England and Wales and laid the basis for a long series of statutes dealing with public health.

From the middle of the nineteenth century onwards a number of water undertakings were set up to provide water to the expanding urban population, and the water supply system developed rapidly, although in piecemeal fashion and with some overlapping and waste.

Local authorities have a duty as sanitary authorities to ensure that water supplies are adequate for the needs of their areas, and they may do this either by operating water undertakings themselves or by ensuring that other bodies are providing adequate

supplies. The householder receives his domestic water supply at a comparatively small charge, varying in different areas, which he usually pays by way of a water rate levied, like other rates, on the value of his house. Industrial users are charged according to consumption as recorded by meter.

Under the Water Act, 1945, the Minister of Housing and Local Government has a duty to promote the conservation and proper use of water supplies in England and Wales. A statutory Central Advisory Water Committee advises the Minister on general questions relating to water and organisation of supplies. Since the passing of the Act, some 580 smaller water authorities in England and Wales have been absorbed by larger authorities or by the creation of joint boards in order to improve the efficiency of the water supply industry. In March 1962 there were in England and Wales 487 local authority water undertakings, 95 joint water boards (including bulk supply boards) and 8 joint water committees, 53 statutory water companies, 11 non-statutory water companies, and 3 private proprietors with statutory powers. A considerable number of private proprietors without statutory powers also provide small supplies.

The *Metropolitan Water Board*, which is probably the largest single water undertaking in the world, supplies about 360 million gallons daily to about 6½ million people in the London area. It consists of 88 part-time members who are the elected representatives of the various local authorities within the board's area of operations, together with one representative each from the Thames and Lee Conservancies. Under the plans for the reorganisation of local government in London (see p. 78), the functions of the board may be transferred to the Greater London Council.

Present Supplies in England and Wales

Today, piped water reaches over 95 per cent of the total population of England and Wales and about 90 per cent of the rural population.

Capital expenditure by water undertakers amounts to between £40 million and £50 million a year. Interest, together with running costs, is largely met from annual income.

The provision of piped supplies for rural districts has been assisted by grants under the Rural Water Supplies Act, 1934, and under the Rural Water Supplies and Sewerage Acts, 1944 to 1955. By March 1962 schemes costing £90 million had been completed or were in progress with the aid of grants under these Acts.

The steady growth of towns in England and Wales has meant increased demands for water, the needs of industry having grown so much that in many areas they now exceed domestic demand. The use of water in irrigation of farm land is also growing; it is estimated that the area of land under irrigation is increasing by 15 per cent a year. In order that the country's water resources should be developed to meet these growing requirements the Government has proposed a new structure of administration for the control of water in rivers and underground, consisting of 27 'river authorities' and a central advisory body (*Water Conservation, England and Wales, Cmnd. 1693*). The river authorities would manage the water resources of river basins, superseding the existing river boards (see p. 343) and taking over their functions of land drainage, flood control, administration of fisheries and prevention of pollution. They would be responsible for assessing water resources and requirements, controlling and developing resources, and allocating water between users by a system of licensing. Special arrangements, based on existing authorities, would be made for the Greater London area, which is not considered suitable for administration by a self-contained river authority. The work of the river authorities would be co-ordinated by a new expert central advisory authority accountable to the Ministry of Housing and Local Government. Its duties would include the review of national water resources and requirements,

the encouragement of the transfer of water between areas according to need, the co-ordination of proposals of river authorities for capital investment and the initiation of research. Water conservation is expected to be financially self-supporting, the cost being met from charges made to abstractors and users of water. Legislation based on these proposals is to be put before Parliament.

Water Supply in Scotland and Northern Ireland

In Scotland public water undertakings are carried on entirely by local authorities, either separately or in combination with each other; they supply over 95 per cent of the total population. The water problem in Scotland is broadly similar to that in England and Wales except that there is not the same need to allocate water between competing interests and less reliance needs to be placed on underground sources. The Water (Scotland) Acts, 1946 and 1949, among other provisions, impose a general duty on the Secretary of State to promote the conservation of water resources in Scotland; require local authorities to provide supplies of wholesome water everywhere in their districts, where this can be done at reasonable cost; and provide for a uniform system of rating for water throughout the country. The Scottish Water Advisory Committee advises the Secretary of State on general questions relating to resources and supplies. The Rural Water Supplies and Sewerage Acts, 1944 to 1955, make available to Scottish local authorities grant assistance up to a maximum of £30 million towards the cost of water supplies and sewerage schemes in rural areas. By December 1961 the total value of work done on new and improved water supplies since 1945 amounted to £59 million, of which £27.9 million represents works aided by grants under these Acts.

Northern Ireland has abundant supplies of water for both domestic and industrial consumption. The Water Supplies and Sewerage Act (Northern Ireland), 1945, made it obligatory for water supply authorities to provide a supply of wholesome water to houses and schools in their areas where this could be done at reasonable cost, and also empowered the Ministry of Health and Local Government to make grants towards the costs of schemes undertaken by these authorities. Before 1945 only the more densely populated areas had a piped supply, but progress has been such that even in the thinly populated rural districts most households have now been, or soon will be, connected to a piped supply. By 31st March, 1962, £30 million had been expended, including grants totalling £12.9 million.

In October 1961 the Minister of Health and Local Government appointed a Water Resources Committee which is making a detailed study of water in the province.

Measurement of Water Resources

Information on the yield, behaviour and quantity of the nation's surface water resources is provided in the *Surface Water Year Book of Great Britain*, published annually by H.M. Stationery Office. This publication contains particulars of the run-off and related rainfall from a large number of rivers, streams and reservoired areas. The Surface Water Survey Centre of the Ministry of Housing and Local Government is responsible for the promotion of gauging, the collection of hydrological information, and the publication of the year book. The field work of surface water measurement is carried out by river boards, water undertakings and other bodies. General information on rainfall, published annually in *British Rainfall*, is the responsibility of the Meteorological Office, while the subject of ground water is dealt with by the Geological Survey and Museum. In special cases the Hydraulics Research Station of the Department of Scientific and Industrial Research carries out research into problems of the

design and calibration of gauging weirs and flumes for the measurement of surface water.

Water Pollution

The Rivers (Prevention of Pollution) Acts, 1951–61, give river boards (see p. 343; the term includes the Thames and Lee Conservancies) extensive powers to control the discharge of polluting matter into rivers and certain tidal waters. Control of pollution in the tidal Thames is exercised by the Port of London Authority (see p. 365). There is a similar Act for Scotland, under which nine river purification boards have been set up to promote the cleanliness of the rivers in their areas.

The Water Pollution Research Laboratory of the Department of Scientific and Industrial Research is engaged in investigating problems connected with the treatment of water for domestic and industrial supply, the treatment and disposal of sewage and industrial waste water, and the effects and prevention of pollution of surface water and underground water. Research is carried out with general supervision and advice from the Water Pollution Research Board of the Department of Scientific and Industrial Research.

CONSTRUCTION

The construction industries comprise firms engaged wholly or mainly on construction, alteration, repair and maintenance of buildings, highways, airfields, sewers, waterworks, harbours and canals, electric wiring, heating and other installation work, open-cast coal prospecting and mining, non-electrical work at power stations and structural work connected with telecommunications. The industries employ some 1½ million persons and provide about 6 per cent of the gross national product. They also make an important contribution to overseas development.

Structure

Over four-fifths of all constructional work is done by private concerns. The majority of firms are small or medium sized. Nearly 28 per cent of the firms in the industry are one-man businesses engaged in such trades as house painting or plumbing, and over 80 per cent employ fewer than 10 persons. At the other end of the scale there are only about 80 firms of building and civil engineering contractors employing more than 1,000 persons each. Some of these are integrated concerns owning quarries as well as workshops, extensive stocks of mechanical plant, and the standard stores and tackle of builders' yards; they also undertake large-scale constructional contracts overseas. Some firms are prepared to offer a 'package' service comprising complete responsibility for projects from design to finished building.

There are also over 250 United Kingdom firms of consulting engineers which undertake detailed investigations of constructional projects, report on the type of work recommended and materials required, provide estimates of the time and cost of construction, obtain competitive tenders from contracting firms and supervise the carrying out of the work by the contractor. In addition, there are hundreds of firms of architects which are concerned with the design, planning and supervision of building and civil engineering projects in association with quantity surveyors for costing.

A growing proportion of construction work, in Britain and overseas, is being undertaken by 'consortia', i.e. organisations in which several firms group together to secure large contracts—such as the building of nuclear power stations—which are beyond the technical or financial resources of a single firm.

Value of Output

The value of the annual output of the industry has been rising fairly steadily since 1945 and especially since 1958; the total for Great Britain in 1961 is estimated to amount to £2,845 million. Of this total, £442 million represents work carried out by the staffs employed directly by the public authorities (including Government departments, local authorities and certain public utilities), while the balance of £2,403 million represents the output of private firms (new work, £1,881 million, and other work, £522 million). According to the index of industrial production its volume of output rose by 18 per cent between 1958 and 1961.

Housing Construction

In the post-war period most new houses in Britain have been built by private firms working under contract to local authorities, but the proportion built by private firms for private owners has increased appreciably since 1951 (see Chapter 6, Planning and Housing). About 9 per cent of local authorities in England and Wales employ direct labour in housing construction. In 1961 the value of new housing built in Great Britain by private firms was £742 million, of which £469 million was for private developers and £273 million for public authorities.

Between 1945 and the end of 1961 about 4 million new permanent houses and other dwellings were built in the United Kingdom (including over 95,000 in Northern Ireland), besides some 160,000 temporary houses constructed in the immediate post-war years with extensive use of prefabrication techniques.

Civil Engineering and Industrial Building

Britain was the first country to develop civil engineering as a large-scale modern industry and the first to provide techniques, finance and equipment to carry out major civil engineering projects throughout the world. Prominent figures in the early development of civil engineering included: James Brindley (1716-1772), builder of canals; John Loudon McAdam (1756-1836), pioneer in road construction; Thomas Telford (1757-1834), builder of roads, docks and bridges; and George Stephenson (1781-1848), Robert Stephenson (1803-1859), Joseph Locke (1805-1860), Isambard Kingdom Brunel (1806-1859) and Thomas Brassey (1805-1870), builders of railways.

The principal professional body in the civil engineering industry is the Institution of Civil Engineers, incorporated by Royal Charter in 1828.

Within the United Kingdom the industry has been occupied since the war with large-scale reconstruction and development schemes. These have included work on the repair, modernisation and electrification of railways, road and dock development schemes, airports, sea defence works, thermo-electric and hydro-electric power stations, improved water supplies, and drainage and sewerage systems.

Among important construction projects in hand in the United Kingdom in 1962 were a 26-storey office block with a 400 foot tower being built in Manchester at a cost of £5 million; the new 10-storey West London Air Terminal with an underground garage for 140 cars, which is being built for BEA at a cost of £3.5 million; and a nuclear power station at Sizewell in Suffolk with a net output of 580 MW, costing £55 million and due for completion in 1966. Large-scale bridge-building projects in hand include a road suspension bridge across the river Severn which will be the largest in the world outside the United States; and the Medway bridge with the world's largest pre-stressed clear span (500 ft.).

In Great Britain since the war, more than 34,000 industrial buildings of over 5,000 sq. ft. (with a total area of over 873 million sq. ft.) and many smaller factories have been erected.

Output in Northern Ireland

Developments in the building and civil engineering industries in Northern Ireland have followed much the same pattern as in Great Britain.

The output of these industries has been relatively higher in Northern Ireland since 1946 than before the war, as considerable leeway had to be made up. Progress has been particularly marked in housing, hospitals and educational buildings, water supply and sewerage, road reconstruction schemes, arterial drainage and harbour schemes. An extensive programme of factory construction has been under way since 1947 with the object of attracting new industries to Northern Ireland.

Overseas Constructional Work

Constructional work carried out overseas by British firms has included railways in most parts of the world; large-scale irrigation works in India, Pakistan, Egypt, and Greece; and canals, roads, docks, harbours, power stations, airfields, hydro-electric schemes and industrial and housing estates in several countries. British conditions of contract for international civil engineering work have been widely adopted as standard throughout the world.

British consulting engineers have built up a tradition of knowledge and integrity, which has caused their services to be in demand throughout the world. During 1960 they were involved in building and civil engineering projects in all five continents costing over £550 million. British construction firms were exclusively responsible for projects costing £168 million and shared a further £157 million worth of contracts with firms from other countries.¹ Important overseas projects in which the consulting engineers and holders of the main construction contract are all British are the new deep water harbour at Barbados, which cost £3.7 million and was completed in 1961, and Tema Harbour in Ghana which was opened in 1962 and, when completed, will have cost over £21 million, including preliminary work which was also done by a British firm. Similar examples are the drainage and irrigation schemes at Black Bush Polder and Tapakuma in British Guiana, costing together over £4 million. In the Sudan a British consulting engineer and British construction, textile machinery and electrical firms are co-operating in the construction and equipment of two cotton ginning factories which will cost £1.4 million. A British firm is the sole contractor for the design, procurement and construction of a polyethylene plant, started in 1960 at Altona in Australia and expected to cost £4 million. The consulting engineer in this case is not a United Kingdom firm.

It has been estimated that the value of work done during the year ended March 1962 by 60 principal British building and civil engineering firms, operating in some 62 countries, was £113 million, compared with £135 million in the previous year; the value of contracts obtained rose from £98 million in 1960-61 to £122 million in 1961-62. Just over half of this was done in the sterling area.

Research and Development

The Department of Scientific and Industrial Research (DSIR) set up the Building Research Station in 1921, and thus made Britain the pioneer of organised building

¹ The foregoing figures refer to contracts completed during 1960 and in hand at the end of that year.

research. Work affecting the construction industries is also carried on in several of the other research laboratories connected with the DSIR, such as the Hydraulics Research Station and the Road Research Laboratory, the Heating and Ventilating Research Association and the Welding Research Association. Large manufacturing firms have laboratories, some of the work of which is concerned with construction, and the major construction firms have research departments working on plant, materials and methods. Other bodies concerned with such research include the Admiralty, universities and colleges of technology.

In construction plant, a notable British contribution is Ransomes and Rapier's walking dragline, an earth-moving machine which is moved over the ground by walking beams. The largest model has a capacity of 40 cubic yards of earth.

Concrete is probably the construction material now used in greatest volume throughout the world, and several contributions to concrete technique have been made in Britain since 1945, including methods of pre-stressing invented by small firms and the development of various additives which can be used to impart special qualities to the concrete or to overcome the limitations of natural materials. A cost-reducing process for making sheet glass, known as 'float glass', which can be used for windows and mirrors, has recently been invented in Britain.

Prefabrication is a method of construction which has been successfully developed in Britain during the past twenty years. The assembly of standardised parts saves labour on the site, which may be a great advantage in less-developed areas and has been applied to bridges, houses and large buildings. An interesting example is the solution of the problem of building new schools in Britain reached by a group of local and other public authorities known as CLASP. The techniques developed by CLASP are being exported to Germany and Italy.

Experimental tests with models to assist in the planning of hydraulic projects involving large expenditure were first used in Britain, and then the initiative passed overseas. In 1947, however, the British Government founded the Hydraulics Research Station, one of whose functions is to make model studies of specific problems. This research station has investigated problems connected with the port at Chittagong in Pakistan, the new harbour works at Tema in Ghana, Hong Kong, and Escravos, Nigeria, and with dams in Malaya, Greece, Venezuela and Pakistan.

MANUFACTURING INDUSTRIES

Britain's manufacturing industries provide a wide range of products, many of which are of major importance in world trade. Output has increased by 15 per cent since 1958, though there was only a marginal increase between 1960 and 1961. In 1961 this sector spent £1,276 million on fixed capital equipment, including £354 million on building work and £850 million on plant and machinery. The number of employees in manufacturing industry (including the unemployed and those absent from work through sickness and other causes, but excluding employers and the self-employed) was 9.1 million at the end of May 1961, 39 per cent of the total number of employees.

Manufacturers' prices, which had risen by more than 3 per cent a year from 1954 to early 1957, increased very little from then until the end of 1959; by 1960 the average price of manufactured products had begun to rise again, and in 1961 prices were 2.5 per cent higher than in 1960, though in the latter part of 1961 the rate of increase was much lower.

The employment and net output figures listed in Table 17 give an indication of the relative importance of broad sectors of manufacturing industry. (Net output is the value added by productive activity of firms in the industry.) Expansion has been particularly rapid in electronics, most sections of electrical engineering, most branches of the chemical industry and man-made fibres.

In the subsequent sections, statistics relating to firms are those of enterprises given in the Census of Production for 1958, statistics of employees refer to numbers at end May 1961, and export statistics are taken from the *Accounts Relating to Trade and Navigation in the United Kingdom*.

TABLE 17
INDUSTRY GROUPS: NET OUTPUT, PRODUCTION, EMPLOYMENT AND
CAPITAL EXPENDITURE

Industry Group	Net Output in 1958		Index of Industrial Production 1961	Number of Employees (thousands)	Gross Fixed Capital Formation
	£ million	Percentage of total	1958 = 100	End-May 1961	£ million
Food, drink and tobacco ..	916.5	11.7	110	814.7	130.6
Chemicals and allied industries	735.7	9.4	124	535.6	204.3
Metal manufacture.. ..	689.3	8.8	114	637.6	254.0
Engineering and electrical goods	1,742.7	22.2	121	2,115.2	371.5
Shipbuilding and marine engineering	227.0	2.9	86	275.5	
Vehicles	818.4	10.4	109	901.9	
Metal goods (not elsewhere specified)	439.3	5.6	105	564.7	
Textiles, leather and clothing	966.9	12.3	111	1,567.2	113.7
Paper, printing and publishing	577.0	7.4	120	621.8	83.0
Other manufacturing industries	735.9	9.4	118	955.3	118.9
TOTAL	7,849.0	100.0	114.8	9,056.6	1,276.0

METAL MANUFACTURE

The metal manufacturing industries employed 638,000 persons in May 1961. Of these, 364,000 were in the iron and steel industry, 128,500 in the manufacture of iron castings, 58,000 in the manufacture of light metals, and 88,000 in the copper, brass and other base metal industries. Exports had an aggregate value of £314.6 million.

Iron and Steel

Britain pioneered the application of coal to the smelting of iron ore from the seventeenth century onwards, and British inventors were responsible for the discovery

of the processes which led to the great expansion of steelmaking in the second half of the nineteenth century. Today Britain is the world's fifth largest steel producing nation. Output of ingots and castings in 1961 totalled 22.1 million tons, somewhat below the record level of 24.3 million tons in 1960, but well above the 1946 level of 12.7 million tons; 12.7 million tons of pig iron and 11.5 million tons of scrap were consumed. Pig iron production amounted to 14.7 million tons.

Deliveries of finished steel amounted to 16.8 million tons in 1961, and the 3.4 million tons of iron and steel products which were exported had a value of £211.7 million; India (£12.5 million), New Zealand (£12 million), Sweden and the United States were the main overseas buyers.

The main producing districts are: South Wales (22 per cent of total crude steel output); the north-east of England (20 per cent); Sheffield and district (13 per cent); Lincolnshire (11 per cent) and Scotland (11 per cent). Other important areas are Lancashire, Yorkshire, Staffordshire, Northamptonshire, and the north-west coast of England. South Wales concentrates mainly on the manufacture of flat products, especially sheet steel and tinplate; the output of the north-east coast and Scotland is predominantly of heavy steel products (plates, sections and rails); Sheffield is responsible for 70 per cent of the United Kingdom alloy steel production.

During the period 1946-61 over £1,100 million was spent on capital development, including £200 million in 1961. As a result, Britain has some of the most modern plant in Europe. Major schemes still to be completed include those involving the use of oxygen both in modified large open-hearth furnaces and in the new converter processes. Five companies are installing enlarged electric arc furnaces of over 100 tons capacity. By 1965 it is estimated that open-hearth steel will have declined from 85 per cent to 67 per cent of total output; converter steel will have increased from 8 per cent to 21 per cent, and electric steel from 7 per cent to 12 per cent. Total capacity in 1965 may exceed 34 million tons.

Larger and more efficient blast furnaces (in some cases exceeding 30 ft. hearth diameter) have been installed and coke consumption has been reduced by improvements in the preparation of raw materials. Extensive experiments are taking place on the use of fuel injection and oxygen-enriched blast. The industry controls a fleet of 73 special ore carriers.

Many companies have developments to improve the quality and range of finished products, including continuous mills to roll rods, strip bars and other items. Outstanding projects nearing completion in 1962 include the erection of new works for the production of sheet on strip mills at Newport (Monmouthshire) and at Ravenscraig (Scotland).

The iron and steel industry has been subject to some form of public supervision since 1932, when a Government-appointed body, the Import Duties Advisory Committee, gave special attention to the reorganisation of the industry. In February 1951 the greater part of the industry came under public ownership by virtue of the Iron and Steel Act, 1949. The 1949 Act was repealed by the Iron and Steel Act, 1953, which established an Iron and Steel Holding and Realisation Agency with the duty of returning the companies to private ownership. The number of companies in which the Agency has a controlling shareholding has been reduced from 81 in July 1953 to 7 at the end of 1961 (including one major company and one company in voluntary liquidation).

The 1953 Act also provided for the establishment of the Iron and Steel Board to exercise a general supervision over the iron and steel industry. Members of the Board are appointed by the Government and it is financed by levies which it has power to

make on firms in the industry. The major trade association in the iron and steel industry, excluding iron founding, is the British Iron and Steel Federation.

Iron Castings

Output of iron castings was 3.8 million tons in 1961, compared with 3.5 million tons in 1959 and 2.54 million tons in 1946. Over 1 million tons are used annually in the general engineering industry, over 700,000 tons in the motor vehicle industry, about 500,000 tons each in the manufacture of pressure pipes and fittings and some 600,000 tons in the steel industry. An important part of total output consists of grey and malleable iron castings for use in motor vehicles, tractors, machine tools, engines and all kinds of power unit.

There are about 1,400 firms in the industry, which includes blast furnaces other than those forming part of integrated steelworks; the output of pig iron is consequently only a small proportion of the total. Exports are included in the total of steel exports in the previous section.

Non-Ferrous Metals

The United Kingdom non-ferrous metals industry is the largest in Europe and as a consumer of aluminium, copper, lead and zinc Britain is second only to the United States among western countries. Output in 1961 included: aluminium, 32,000 tons of virgin metal and 220,000 tons of secondary metal; refined copper, 129,000 tons of virgin copper and 105,000 tons of secondary metal; lead, 86,000 tons of refined metal; zinc 93,000 tons of slab metal; and tin, 26,000 tons. Mining in Britain is confined to the working of lead, tin and tungsten ores on a small scale.

In 1961 exports of non-ferrous base metals were valued at £102.8 million. The main products exported were copper and copper alloys (£48 million), aluminium and its alloys (£17.6 million), nickel and its alloys (£20.1 million), and tin and its alloys (£10.1 million). These totals include the value of semi-finished products. Western Germany (£11.2 million) and the United States (£8.5 million) were the largest purchasing countries. There were also substantial exports of finished products incorporating non-ferrous semi-finished products and non-ferrous metals in many finished forms.

Nearly half of the industry is situated in the Midlands; other centres include South Wales, London, Tyneside and Avonmouth. It consists of 915 firms engaged in smelting, casting and fabrication by rolling, extrusion and drawing. The techniques of powder metallurgy and pressure diecasting are also employed. Some non-ferrous metals such as nickel, molybdenum, tungsten and vanadium are largely used in the making of high speed and tool steels. New uses for non-ferrous metals with special properties have emerged with the growth of new industries having particular requirements, as, for example, production of nuclear energy (uranium, zirconium, beryllium), jet aircraft (niobium, magnesium, titanium) and electronic apparatus (selenium, silicon, germanium, tantalum), and the United Kingdom industry has some of the most advanced plant in the world for the preparation of zirconium.

MECHANICAL ENGINEERING

Mechanical engineering comprises a wide range of industries, including all types of machinery, machine tools, engineers' small tools, small arms, mechanical handling equipment, construction equipment, industrial plant, watches and clocks, and scientific instruments. Tractors and vehicle engines are included in the section on vehicles (p. 308). The volume of deliveries from these industries rose by 26 per cent between

1954 and 1961, in which latter year £1,658 million was the aggregate value of the main products of all sections other than small arms, scientific instruments and watches and clocks; exports of these products had a value of £586.8 million (including some parts and used items). The total number of employees was over 1.34 million.

Agricultural Machinery

In 1961 output of agricultural machinery other than tractors was valued at £49 million, and included: 18,500 mould-board ploughs, 8,600 disc harrows, 3,600 corn drills, 8,000 farmyard manure spreaders, 15,300 mowers, 14,200 pick-up balers, 2,800 combine harvesters, 1,600 grain and grass driers, and 9,300 milking machines. Exports in 1961 had a value of £20.1 million; the Irish Republic, Australia, France and Western Germany were the main markets. Though there are over 300 firms in the industry, three enterprises employing over a thousand workers account for over half the net output of larger firms.¹ About 36,000 persons are employed.

Metal-working Machine Tools

Britain was the birthplace of the modern machine tool industry, and by the early 1830s had developed to an advanced stage the boring machine and screw-cutting lathe, as well as other machine tools. The industry's output today ranges from watchmakers' lathes weighing a few pounds to machines weighing hundreds of tons, including transfer lines for motor vehicle manufacture and electronically controlled machine tools giving accuracies of one ten-thousandth part of an inch.

A substantial expansion in output and exports took place in 1961. The value of deliveries of metal-working machine tools rose to £115.7 million, the highest ever recorded. Exports in 1961 had a value of £35.1 million; of the orders on hand at the end of December 1961, valued at £116.9 million, 27 per cent was for export. India (£4.6 million), Australia (£3.6 million), Italy, Western Germany and Japan were the main markets.

There are about 330 separate firms making machine tools, but over 40 per cent of net output is produced by 13 enterprises employing over 1,000 persons. The high degree of specialisation makes it possible for the small firm to flourish. The industry is centred mainly in the Midlands, Yorkshire and Lancashire, and to a lesser extent near London and Glasgow.

The Machine Tool Trades Association of Great Britain is the representative body of most manufacturers and importers, and is responsible for the International Machine Tool Exhibitions held in Britain every four years; the most recent exhibition took place in 1960. The industry is also served by its own research body, the Machine Tool Industry Research Association.

Substantial expenditures on plant and buildings have been made in recent years. About 94,000 persons are employed in the industry.

Industrial Engines

Britain manufactures a wide range of industrial engines other than those for the vehicle construction industries (see p. 307). Deliveries of complete engines had a value of £88.4 million in 1961 and exports were worth £15.5 million; in addition, parts exported (including some for marine and rail traction engines) were valued at £16.8 million. The total brake horse power of the 342,000 internal combustion engines delivered was 7 million.

¹ Firms with over 25 employees.

There are 71 firms for whom industrial engines are the chief product. Production is concentrated among the large firms, and 10 large firms, each employing over 1,500 persons, account for over 86 per cent of the net output of larger firms. About 44,000 employees work in the industry.

Textile Machinery

One of the oldest of Britain's mechanical engineering industries is the textile machinery industry, which developed rapidly after the introduction of mechanical spinning and weaving towards the end of the eighteenth century. It enjoys a world-wide reputation and offers a complete range of modern equipment for all stages in the manufacturing process. Deliveries in 1961 were valued at the record total of £91.4 million and exports also reached their highest ever value of £62.1 million. Principal markets were the Soviet Union (£8.1 million), India (£4.9 million), Western Germany (£3.8 million), Australia (£3.1 million), the United States, Italy, France and Pakistan.

The industry, which has about 62,000 employees, comprises about 617 firms, situated mainly in Lancashire, Yorkshire, Northern Ireland, Dundee, Leicester and Nottingham, making a wide range of machines and accessories for the manufacture and processing of yarns and fabrics from all types of natural and man-made fibres, including bast and leaf fibre machinery of which the United Kingdom is still by far the world's largest supplier. Five enterprises with over 2,000 employees produce almost 53 per cent of the net output of the 158 larger firms.

Mechanical Handling Equipment

Almost every industry makes use of mechanical handling equipment; the products of the industry range from individual units and accessories to complete operating systems but are usually taken to exclude colliery gear and conveyors for underground mines. The value of deliveries in 1961 was some £97.5 million, the main constituents being: cranes and bridge transporters (about 40 per cent by value), lifts, escalators, conveyors, elevators, hoists and other mechanical handling equipment. Exports in 1961 were valued at £19.3 million.

There are 267 firms in the industry but only 150 of these employ over 25 persons, and 8 large enterprises with over 1,000 employees account for 43 per cent of the net output of larger firms.

Construction Equipment and Quarrying Machinery

Production of construction equipment in the United Kingdom before the second world war was mainly concerned with small excavators, concrete-mixing machinery and road surfacing plant, including road rollers. Today almost the whole range of plant is manufactured, including crawler tractors, motor graders, scrapers, trenchers, dozer equipment, dumpers, rippers, rooters, and crushing, pulverising and screening plant.

The value of deliveries from the industry was over £107.2 million in 1961; by far the most important single item was earth-moving machinery with a value of £67.4 million. Exports in 1961 totalled £52.1 million; Australia, Western Germany, Malaya, Switzerland, France, Sweden and Spain were important markets.

Contractors plant and quarrying machinery is manufactured by 129 firms, and of the larger enterprises, 8 with over 1,000 employees account for 47 per cent of net output. The labour force numbers about 27,000.

Office Machinery

The United Kingdom office machinery industry has expanded rapidly and is now second in size only to that of the United States. In 1961 the value of deliveries of office machinery (such as accounting machinery, punched-card machinery, typewriters, dictating machines, and duplicating machinery) was £76 million. Deliveries in 1961 included 189,000 standard typewriters and 241,000 portable typewriters. The value of deliveries of accounting machinery was £41.6 million and of other office machinery £20.4 million. Exports were valued at £29.6 million and the most important overseas purchasers were Australia, the United States, France, South Africa and Western Germany. British subsidiaries or associates of United States firms are prominent in the office machinery industry, in which there are 78 firms. Nine firms, each with over 1,000 employees, produce 85 per cent of the net output of larger firms.

Engineers' Small Tools and Gauges

The manufacture of engineers' small tools and gauges is an expanding industry and is the main branch of production for over 1,100 firms, of which 4 have over 1,000 employees. Deliveries increased in value from £52.1 million in 1959 to £75.2 million in 1961; exports amounted to about £14 million. The industry has a labour force of about 55,000 persons.

Industrial Plant and Steelwork

British industry manufactures almost every type of industrial plant and steelwork, and about 160,000 are employed in this branch. Of particular importance are steam-raising boilers, lime and cement kilns, gas and coke oven plant, sintering plant, metallurgical furnaces and plant, chemical and mineral oil refining plant, nuclear reactors, water and sewage treatment plant, and steelwork for bridges, buildings, etc. The 859 enterprises include several large firms. Almost 60 per cent of the net output of larger firms comes from 29 firms with over 1,000 employees, and nearly one-third is accounted for by 7 firms with a labour force of over 3,000. In 1961 the aggregate value of deliveries was £338.7 million; exports had a value of almost £56 million.

Boilers and Boilerhouse Plant. British companies delivered water tube boilers to the value of £56.4 million in 1961; shell boilers and other boilerhouse plant accounted for a further £32.6 million. Water tube boilers of advanced design and of large steam-raising capacity are produced for power stations, whereas shell boilers are used for steam-raising and heating in factories and buildings. Exports in 1961 amounted to £19.2 million.

Iron, Steel and Non-ferrous Metal Works Plant. The post-war modernisation and expansion of the British steel industry has led to the rapid development of the steel-works plant industry, which today provides, in association with firms producing rolling mills, almost all Britain's requirements, and also supplies plant for export. The value of deliveries in 1961 was £31.9 million; rolling mills and ancillary equipment (classified under miscellaneous machinery) (see p. 304) accounted for an additional £25.9 million. Exports had a value of £8.6 million, which includes blast furnace plant and other metallurgical equipment.

This industry consists of a small number of firms, most of which are business associates or members of a consortium. They are capable of supplying the plant and equipment for steel and non-ferrous metal works, and are in the position to undertake the planning, erection and supply of complete plants in any part of the world; the Durgapur Steel Works in India is an outstanding example.

Chemical Plant and Mineral Ore Refining Equipment. The manufacture of specialised equipment for the chemical and ore refining industries has developed rapidly since the second world war. Deliveries of complete plant had a value of £68.6 million in 1961 compared with £37.3 million in 1959. Exports of chemical plant (including some gas machinery) amounted to £8.5 million in 1961, and exports of mineral ore refining machinery came to a further £2.9 million. If the whole range of equipment manufactured by British firms for the petroleum industry is aggregated, Britain ranks second to the United States as a supplier. The range of chemical plant produced includes distillation columns, heat exchangers, high vacuum drying equipment, and plant for the manufacture of chemicals from all feedstocks including petroleum.

Nuclear Power Station Plant. The design and construction of nuclear power stations is one of the outstanding present-day enterprises of British industry. Three major groups of firms, consisting of leading firms in the heavy electrical engineering, civil engineering, boiler, instrument, and associated industries, build nuclear power stations for the United Kingdom electricity authorities, and are also building stations in Italy and Japan. The Atomic Energy Authority grants them non-exclusive manufacturing licences and is working in close collaboration with them in research and development.

Several companies have designed, or have designs under study for, small nuclear power stations to be used for electricity generation, and for marine propulsion reactors. Companies have also been established for the manufacture of graphite for use in reactors.

The Nuclear Energy Trade Associations' Conference (NETAC) was formed towards the end of 1956 to establish a permanent means of liaison and to pool experience among the firms and trade associations concerned in nuclear development.

Miscellaneous Non-electrical Machinery

In addition to the mechanical engineering firms described in preceding sections, there are 1,750 enterprises whose principal product is a type of machinery not so far mentioned; 891 of these firms have over 25 employees and 59 have more than 1,000. Four firms have a labour force of over 4,000. The main products include: mining machinery, printing and book-binding machinery, refrigeration appliances, space heating, ventilation and air conditioning equipment, pumps and pumping machinery, industrial valves and cocks, compressors, scales and weighing machinery, portable power tools, food preparing machinery, rolling mills for steel and non-ferrous metals and many other types of equipment. The total value of deliveries in 1961 was some £603 million. Exports of the industry's main products including some parts were valued at £238 million. About 348,000 workers are employed in these industries.

Refrigeration, Space Heating and Ventilation Equipment. The United Kingdom industry makes a wide range of equipment and appliances, extending from refrigerators of varying sizes suitable for domestic and commercial use to industrial refrigeration equipment for cold stores, manufacture of chemicals and other products, ice-making plant and refrigeration plant for ships. Important advances have recently been made in the development of accelerated freeze-drying equipment for the food industry and of refrigerated transport vehicles. Production of commercial and industrial refrigeration machinery was well established before the second world war, but the present large production of domestic refrigerators has been built up since 1946. Deliveries in 1961 had a value of £57.1 million.

Space heating and ventilation equipment includes sectional boilers for central heating; hot air, water and steam radiators; and fan and air filters. The value of deliveries have been rising in recent years and in 1961 reached £52.5 million.

Exports of air conditioning equipment, refrigerators and fans in 1961 had a value of £9.8 million; Western Germany (£1.1 million) was the largest overseas buyer.

Pumps and Industrial Valves. Industrial valves controlling the movement of liquids and gases are a vital component in many industrial processes, particularly in the chemicals, oil and electric power industries. The value of deliveries of pumps and valves in 1961 was estimated at £98.3 million. Exports of pumps were valued at £18 million and exports of industrial valves at £14.6 million.

Other Machinery. The value of deliveries of other major products in 1961 was: mining machinery, £53.6 million; air and gas compressors and exhausters, £29.2 million; food and drink machinery £41.3 million; packaging machinery £19.3 million, rolling mills (see p. 303), £25.9 million; and other machinery £228.1 million. Exports of mining machinery had a value of £7.2 million, air and gas compressors had a value of £10.4 million, and food and drink machinery had a value of £14 million.

Scientific and Industrial Instruments

The industry comprises 1,330 enterprises engaged in the manufacture of photographic, scientific, surgical and industrial instruments. A rapidly expanding sector is that making industrial and process measuring and control instruments—an essential element of automation in industry—deliveries of which amounted to £52.4 million in 1961. The value of deliveries of other broad categories was: optical instruments £7.6 million; electrical measuring instruments £8.4 million; nautical and gunnery control instruments £12.5 million, and other instruments £24.4 million.

The industry has a labour force of 136,000 persons. About 54 per cent of the net output of larger firms is accounted for by 21 large enterprises, each employing over 1,000 persons.

Exports have risen sharply to £53.5 million in 1961, 50 per cent higher than the 1958 total. Australia, the United States, Western Germany, France, India and Canada were the most important markets.

Clocks and Watches

Britain was at one time the world's leading producer of clocks and watches, but by the end of the nineteenth century production had virtually died out. The present industry is largely a post-war development. It employs about 16,200 people, the great majority skilled craftsmen, and many of its factories are located in the development districts and particularly in Scotland. Deliveries in 1961 included clocks to a value of £6.2 million and watches worth £4.4 million; exports were valued at about £2.5 million.

General Mechanical Engineering

Behind the firms manufacturing the major products outlined in this section are nearly 4,000 enterprises employing about 210,000 whose main functions are to supply parts and components, to conduct research and development work, and to undertake general sub-contract and repair work. (Some enterprises are included because the mixed character of their work makes it impossible to classify them under any other industries.) They include several very large undertakings: 23 have over 1,000 employees each and 7 have over 5,000 employees. Ball and roller bearings, and precision chains are particularly important products; exports of the former were valued at £8 million in 1961, and exports of chains at £4.7 million.

ELECTRICAL ENGINEERING

The United Kingdom electrical engineering industry is engaged in the manufacture and installation of a wide variety of electrical equipment, including all types of generating, transmission and distribution equipment; motors; telecommunications apparatus; domestic appliances; and specialised laboratory and electronic equipment. The volume of output rose by 48 per cent in the period 1954-61, and exports (other than record players, etc.) in 1961 reached their highest ever value of £259 million. Products are exported to all parts of the world; in 1961, Australia (£19.9 million), South Africa (£17.5 million), India (£13.5 million), New Zealand (£12.6 million), Canada (£11.6 million) and the United States (£11.2 million) were the main markets.

Altogether the industry employs a labour force of almost 812,000. The leading organisation of the industry is the British Electrical and Allied Manufacturers' Association.

Electrical Machinery

British scientists and engineers have been responsible for many of the basic advances in the generation and transmission of electric power. The experiments of Michael Faraday pointed the way to the production of electricity as a source of cheap and abundant power; Sir Charles Parsons produced and patented the first turbo-dynamo, the forerunner of the giant turbo-generating sets of today. The industry has provided the plant required for the large-scale post-war expansion programme of the United Kingdom electricity authorities, and has built all types of equipment for overseas countries.

In 1961 the output of electrical machinery was valued at £342.8 million, including £140.6 million worth of rotating electrical machinery (motors, generators and rotary converters), £48.5 million worth of transformers for lighting, heating and power, £131.1 million worth of switchgear and control gear and £22.6 million worth of other electrical machinery.

Exports of electrical machinery in 1961 had a value of £65.3 million; South Africa, Australia and India were the main markets. Generators, generating sets and motors accounted for £35.9 million and converting machinery, rectifiers, transformers and other machinery for the remainder.

About 670 firms manufacture electrical machinery, including 27 with over 1,000 employees and five with over 7,500. The total labour force numbers 226,000. Manufacture takes place in many areas; among the most important are Manchester, Rugby, Tyneside, Stafford and Larne (Northern Ireland).

Radio and Other Electronic Apparatus

Production of electronic equipment is a rapidly expanding British industry. United Kingdom scientists and inventors have made many basic contributions to electronics—the thermionic valve, the development of radar (a British firm has fitted over half the world's radar-equipped ocean-going ships), the first public transmission television service, and the 'printed circuit', which has led to far-reaching changes in methods of production in the radio industry. Its wide range of products includes radio and television receivers and electronic capital goods.

Production in 1961 included 3.1 million radios and radiograms with a value of £27.8 million, and 1.3 million television sets worth £50.4 million; among capital goods, electronic control equipment (£11.9 million), computers (£10.9 million), electronic measuring and testing equipment (£9 million); transmitters (£5.5 million), radar and

navigational aids (£14.1 million), radio communication equipment (£13.4 million), other electronic apparatus (£9.9 million). Exports in 1961 had an aggregate value of £69.6 million.

Among the most important overseas markets are the United States, Canada, the Netherlands, Sweden and Australia. Indirect exports of equipment in other products, such as ships, aircraft and machinery are considerable.

There are 490 enterprises in the industry including 3 with over 10,000 employees. Firms employing over 1,000 persons account for 79 per cent of net output of larger firms. The industry has a labour force of over 240,000.

Insulated Wires and Cables

There are 71 firms whose main products are cables and wires for the distribution of electric power, for telegraph and telephone networks and for many other purposes; they include submarine cables and those insulated by a great variety of materials. The value of deliveries in 1961 was £151 million and exports had a value of £23.2 million.

The industry has a labour force of about 64,000 persons. Three firms with over 5,000 employees account for 58 per cent of net output of larger firms.

Telegraph and Telephone Apparatus

Britain is the largest exporter of telegraph and telephone equipment. Shipment overseas (including signalling apparatus and parts) had a value of £24.4 million in 1961. Research and development work is done by firms in co-operation with the Post Office (see p. 391). The industry, employing 66,000 persons, is organised for large-scale operations. Three enterprises have over 10,000 employees and ten firms with over 1,000 employees produce over 75 per cent of the output of the larger firms.

Electrical Goods and Domestic Electrical Appliances

Deliveries of electrical goods in 1961 included: domestic electrical appliances, £138 million; electrical equipment for motor vehicles, cycles and aircraft, £62 million; batteries and accumulators, £41 million; electric lamps, £25 million; and other electrical goods, £91 million. By number, deliveries included: 1.2 million electric blankets, 1.4 million vacuum cleaners, 995,000 domestic washing machines and 2.3 million electric irons. Exports in 1961 had a total value of £64 million. The industry has a labour force of 215,000.

VEHICLES, AIRCRAFT AND SHIPS

The industries which manufacture vehicles, aircraft and ships are among the largest exporters; overseas deliveries in 1961 (including used vehicles and parts) had a value of over £700 million, equivalent to 21 per cent of exports of manufactured goods. The labour force numbers over 1.2 million and includes: 415,000 in motor vehicle manufacture, 305,000 in aircraft construction and repairing, 275,000 in shipbuilding and marine engineering, 141,000 in the manufacture of railway vehicles and carriages, 34,000 in cycle and motor cycle manufacturing, and 7,000 in the building of perambulators and hand trucks.

Motor Vehicles

In both size and value the largest section of the vehicle industry comprises the manufacture of cars and commercial vehicles. In the last fifteen years expansion has

been rapid, and the larger firms alone are currently involved in developing schemes costing over £200 million; new plants are being established on Merseyside, in Wales and in Scotland, and total annual capacity of the five largest manufacturers is expected to be more than 2.3 million cars and 600,000 commercial vehicles and tractors by 1962-63.

The industry is at present located mainly in the Midlands and the London area. Car and commercial vehicle output is dominated by the five largest firms (British Motor Corporation, Ford, Rootes, Leyland-Standard-Triumph and Vauxhall) who account for about 90 per cent of complete vehicle production other than tractors; the balance is in the hands of specialist producers of heavy commercial vehicles, omnibuses, coaches, trolley-buses, limousines and sports cars. Agricultural tractor production is also dominated by five large organisations, with two of these producing about 80 per cent of output. The principal trade association is the Society of Motor Manufacturers and Traders (SMMT) which holds a motor show annually in London, and a Commercial Motor Exhibition every two years. Agricultural tractors are exhibited at the annual Smithfield Show in London.

Cars: Car output expanded almost without interruption to a record of 1.35 million units in 1960, falling back to 1 million in 1961. Exports, which in 1961 were also below the record levels of 1960, amounted to 371,000 cars and chassis with a value of £147.9 million. Canada (£20.9 million) became the largest single overseas purchaser. The United States (£18.8 million compared with £61.6 million in 1960 and £86.7 million in 1959), New Zealand, South Africa and the Irish Republic were the other largest markets.

Commercial Vehicles: Production of commercial vehicles has increased from 146,000 in 1946 to the record total of 460,000 vehicles in 1961. Britain sent overseas the highest ever number of vehicles in 1961—167,000 vehicles and chassis valued at £120.3 million—to become the world's largest exporter of commercial vehicles. South Africa (£9 million), Australia (£8.5 million), Argentina and New Zealand were the main markets.

Tractors: The bulk of British tractor output and exports consists of agricultural tractors. Some 176,000 agricultural and industrial (wheeled and half track) tractors were produced in 1961, about 134,000 (76 per cent) for export. Output also included 5,000 track laying tractors (3,000 for export) and 55,000 small market garden tractors of less than 10 belt horse power. In addition, British firms produced 11,000 powered industrial trucks, including 7,000 of the fork-lift variety. Exports of tractors had a value of £90.8 million in 1961; industrial and works trucks accounted for a further £3.8 million.

Accessories and Parts: It has been estimated that in some cases up to 70 per cent of the final cost of a car is represented by bought-out components. Exports of parts in 1961 had a value of £108.5 million; engines and parts were valued at a further £37.2 million. Caravan and trailer exports were valued at £3.4 million, and exports of used vehicles (not included above) had a value of £3.9 million.

Cycles and Motor Cycles

Cycles: The pedal-driven bicycle was invented in Britain by Kirkpatrick Macmillan in 1839. Deliveries have declined from the post-war peak of over 4 million in 1951 to just under 2 million in 1961. Over 80 per cent of British cycle capacity is concentrated in the hands of a single group of companies, and output is becoming increasingly concentrated in the Nottingham area. Some 1.3 million cycles worth £11.6 million

were sent overseas in 1961; the United States (£3.5 million) was much the largest single market. Parts and accessories exported amounted to a further £5.2 million.

Motor Cycles: Deliveries of all types of motor cycle which rose to the post-war peak of 249,000 in 1959 have since declined to 150,000 in 1961 (27 per cent below the level of 1960). Output has been increasingly diversified during the 1950s, and the 1961 total of deliveries included 24,400 mopeds, 30,000 scooters and 7,300 three-wheeled vehicles. Manufacture of motor cycles is dominated by two large groups. Some 32,700 units with a value of £4.4 million were exported in 1961; parts and accessories came to an additional £1.6 million.

Railway Vehicles

Britain was the first country to build railways and British engineers pioneered railway development in most parts of the world. The industry is organised to meet the conditions resulting from the replacement of steam locomotives by other forms of traction on most of the world's railways.

Production in 1961 included 23 electric locomotives, 631 diesel and diesel-electric locomotives, 2,048 coaching vehicles and 8,408 wagons which were added to operating stock by British Railways. In addition, 69 electric locomotives, 158 diesel and diesel-electric locomotives, 160 coaching vehicles and 2,996 wagons were exported. The total value of exports in 1961 was £14.1 million; South Africa (£2.8 million) was the largest purchaser.

There are 57 establishments making locomotives and railway track equipment in Britain. British Railways have their own workshops; private firms build locomotives, carriages and wagons for British Railways, for industrial users and for export.

Aircraft and Aero-Engines

Since the second world war the British aircraft industry has concentrated on the development of civil and military applications of the gas turbine aero-engine first developed by Sir Frank Whittle. This propulsion was first used in scheduled airline services by the turbo-jet *Comet* and the turbo-prop *Viscount*, the latter probably the most successful post-war civil aircraft. The *Comet 4* jet airliner went into service in 1958, and other gas-turbine aircraft in production include the *Argosy*, the *Herald*, and the *Avro 748*. A second generation of jet airliners made their maiden flight in 1962—the medium-haul *Trident* and the longer-haul Vickers *VC 10*; both have rear-mounted engines. They will come into airline service in 1963 and 1964 respectively.

The industry also produces a wide range of military aircraft and air missiles; its size being strongly influenced by defence requirements. At the peak of wartime activity the number of those actually working in the industry rose to nearly 2 million, compared with 35,000 in 1935. In May 1961 the industry had a labour force of about 305,000.

Exports of aircraft and parts in 1961 had a value of £58.8 million. Leading buyers (who vary considerably from year to year) included Canada (£19 million), the United States (£7 million), the Lebanon (£4.2 million) and Egypt (£4.1 million). In addition, exports of electrical appliances for use in aircraft had a value of £3.7 million, aeronautical instruments had a value of £2.8 million, and tyres a value of almost £1 million. It has been estimated that early in 1962 there were 813 British jet or turbo-prop airliners in service or on order, and of these over half (437) had been ordered by overseas operators.

The construction of aircraft is dominated by two large airframe manufacturers and one helicopter concern resulting from a series of mergers in 1959 and 1960, though

there are a few important smaller companies outside these groups. Main centres of the industry are the home counties (i.e. counties around London), Coventry, Bristol and the west of England, Northern Ireland and Scotland.

Besides extensive research work by the industry, research on a substantial scale on problems of aircraft and their engines is carried out by the Ministry of Aviation, chiefly at the Royal Aircraft Establishment and the National Gas Turbine Establishment, both at Farnborough, and the Royal Aircraft Establishment at Bedford. This work is done in collaboration with the industry and results are made known to manufacturers. In addition, the National Physical Laboratory undertakes research on aerodynamics.

Aero-Engines: Aero-engines provided over £440 million in export earnings from 1946 to 1961; in 1961 exports reached the record total of £82 million, including parts worth £23.9 million. Licence arrangements have been made for about twenty types of British engines to be made abroad, and early in 1962 almost 50 per cent of the world total of jet and turbo-prop airliners on order or in service were to have British power plants. Famous engines at present in production include the economical *Dart* turbo-prop, the *Avon*, *Conway* and *Spey* turbo-jets and the revolutionary *Pegasus* lift-thrust engine for vertical take-off and landing (VTOL) aircraft. Two companies produce almost all British aero-engines.

Shipbuilding and Marine Engineering

The United Kingdom shipbuilding industry is concentrated in four main areas: the river Clyde in Scotland, the north-east coast of England, the north-west coast of England, and Belfast in Northern Ireland. Ships are also built in the Southampton area, in the Isle of Wight, and along the estuaries of the rivers Forth and Tay in Scotland; while numerous yards along the coast build fishing vessels, yachts, harbour craft and barges. Repair yards and dry docks are situated in all the large ports.

During the sixteen years from 1946 to 1961 over 21 million gross tons of shipping were launched from British yards, including 670 tankers, 1,288 dry cargo ships, 86 ore carriers, and 3,139 miscellaneous craft of over 20 different types. The total value of this output was over £2,142 million, excluding £325 million worth of naval vessels, and over £1,000 million worth of naval and merchant ship repair work.

Co-operative research into shipbuilding and marine engineering is undertaken by the British Ship Research Association. A separate organisation, Parsons and Marine Engineering Turbine Research and Development Association (Pametrada), carries out design, development and production liaison work in marine turbines.

Merchant Shipbuilding and Ship Repairing: Tonnage launched has gradually decreased from the post-war peak of 1.5 million gross tons in 1948 to 1.2 million tons in 1961, in which year Britain launched (after Japan) the largest quantity of shipping. The 1961 total included oil tankers amounting to 393,000 gross tons and bulk carriers totalling 224,000 tons. Among the notable ships leaving British yards during the year were three steam turbine tankers of over 67,000 deadweight tons, and two passenger liners of over 20,000 gross tons. The ten large liners completed since 1959 have a total value of at least £85 million. Almost 24 per cent of the tonnage launched in 1961 was for registration overseas.

Modernisation in British shipyards involved the replanning of yards, the erection of large prefabrication shops for welding massive sections under cover, the installation of heavy-lift travelling cranes, and much other reconstruction. Facilities are available for building tankers of up to 100,000 deadweight tons.

Although there are many specialist ship repairing establishments, most of the largest firms also carry on shipbuilding work; about one-quarter of ship repairing activity is concentrated in the north-east coast of England area. Some 2.2 million gross tons of merchant shipping was undergoing repair and conversion in British yards at the end of 1961 but the amount varies from day to day.

Marine Engineering: Most of the larger shipbuilding yards maintain their own engine building works; often they manufacture several types of diesel engine under licence. Steam turbines of the highest powers are available, many designed by Pametrada. Several vessels have been fitted with free-piston gasifier machinery and a large amount of work is being undertaken on the problems of nuclear propulsion units for commercial operation.

MISCELLANEOUS METAL PRODUCTS

The group of industries manufacturing metal products not described above consists of a large number of companies with a total labour force of 564,700 in 1961; the main groups were tools and implements (24,700), cutlery (12,000), bolts, nuts and screws (47,700), wire and wire manufactures (45,000), cans and metal boxes (37,000), jewellery, plate, and refining of precious metals (29,900), also other metal industries (368,400).

The total value of exports in 1961 was about £150 million.

Cutlery and Flatware

The production of cutlery and flatware is centred in the city of Sheffield. The industry has been built up on the skill of its craftsmen; while mass production methods are used today by some firms, the highest quality wares are still produced by skilled craftsmen. Firms remain mainly small and, of some 290 enterprises manufacturing cutlery, over 225 still employ fewer than 25 persons.

Exports of spoons, forks and cutlery had a value of £9.6 million in 1961.

Domestic Hollow-ware

This industry, located mainly in the Midlands, Lancashire, Yorkshire, South Wales and London, produces a wide range of domestic utensils, such as saucepans, buckets and dustbins, mainly from wrought steel and aluminium. Increasing quantities of plastic hollow-ware are being produced, though aluminium manufacturers comprise the largest single group, both in the value of total production and in exports. Exports in 1961 had a value of £3.2 million.

Tools and Implements

The manufacture of hand tools is one of the oldest British industries. Some 680 firms manufacture tools such as files, saws, hammers, axes and spades; Sheffield, Birmingham and other Midland towns are the most important centres.

The value of exports of implements and tools, other than machine tools and portable power tools, was some £20 million in 1961.

Jewellery, Gold and Silver Ware

The making of jewellery, gold and silver ware and the refining of precious metals is an industry in which British craftsmen are heirs to a great tradition. Some 625 of the 885 firms in the industry have fewer than 25 employees. The law requires that

gold and silver plate shall not be sold until it has been hall-marked at one of the Assay Offices situated in London, Birmingham, Sheffield, Edinburgh, and Glasgow. The Birmingham office, located in the main centre of the jewellery industry, probably hall-marks as much gold and silver as the rest together.

CHEMICALS

The chemical industry, which has a labour force of 468,200, comprises the manufacture of: chemicals and dyes (220,000 employees), pharmaceutical and toilet preparations (73,700 employees), explosives and fireworks (32,700 employees), paint and printing ink (49,200 employees), oils, fats, soap and detergents (45,200 employees), synthetic resins and plastics (32,800 employees), polishes and gelatines (14,700 employees). Between 1954 and 1961 output increased by 49 per cent, and in 1961 its net output was valued at almost £800 million. The industry is capital intensive: during the decade 1951-61 some £1,000 million was spent on fixed assets and in recent years the annual rate of fixed capital investment has been around £130 million. The value of exports in 1961 was £325 million; Australia, the Netherlands and India were the most important markets.

Chemical Elements and Compounds

The inorganic chemicals industry dates back to the middle of the nineteenth century, when sulphuric acid and alkali were in increasing demand for the growing heavy industries. Almost 2.7 million tons of sulphuric acid were produced in Britain in 1961, about the same tonnage of ammonia and ammonia salts is produced and large quantities of chlorine and alkali are manufactured. About 70 per cent of the ammonia is made into nitrogenous fertilisers. The most rapidly growing outlets for chlorine are in the manufacture of solvents and the plastics material polyvinyl chloride (PVC). Production of inorganic chemicals increased by nearly one-third between 1954 and 1961.

The earliest organic chemicals were dyestuffs and explosives. Almost 30,000 tons of dyestuffs were produced in 1961. Newer chemicals with organic structures which are manufactured in bulk by modern synthesis from organic chemicals include plastics, synthetic rubber and synthetic fibres. These are among the most rapidly expanding sections of the industry. Production of organic chemicals nearly doubled between 1954 and 1961.

Exports of organic and inorganic chemicals and compounds amounted to over £77 million in 1961; organic chemicals, other than radioactive products, accounted for £40.3 million. Exports go to a large number of countries including, in 1961, the Netherlands (£5.4 million), Australia (£4.6 million) and India (£4.4 million).

Petroleum Chemicals

Since 1949 output of petroleum chemicals in Britain has increased by an average of 37 per cent each year; their share of total organic chemical output has risen from about one-fifth in 1953 to over 50 per cent at the present day, and is expected to reach 70 per cent by 1965. It is estimated that by the end of 1962 total investment in petroleum chemicals will have reached £200 million. Most of the important plants are adjacent to the oil refineries. Production of feedstock for the petroleum chemicals plants totalled about 582,000 tons in 1961 compared with 302,000 tons in 1958. In addition, consumption of coke and tar distillation products (such as phenol, used in the manufacture of organic chemicals) has also increased in recent years. Large quantities

of industrial ethyl alcohol, which was formerly produced from molasses, are now manufactured from petroleum.

Plastics

The first plastic, celluloid, was produced in Britain in 1865 by Alexander Parkes; other British discoveries include polyethylene. Britain was the first country to manufacture plastic coated steel, in 1957.

Manufacture of plastics is one of the most rapidly growing sections of the economy. Output in 1961 was more than double that of 1954. Expansion in recent years has mainly been in thermoplastic materials, of which the most important are polyethylene (used in coverings, packaging—notably for foodstuffs—and domestic mouldings), polyvinyl chloride (known as PVC and used for industrial conveyor belting and a wide range of consumer goods) and polystyrene (a cheap non-inflammable material used for toys, light mouldings and many consumer goods). Capacity for the production of polypropylene (a versatile material for use mainly in electrical components, mouldings, and domestic appliances) is being expanded substantially.

Sales of plastics in 1961 amounted to 609,000 tons, of which thermoplastics accounted for over 396,000 tons. Exports were valued at £42.4 million. The industry is currently undertaking large extensions to productive capacity.

Synthetic Rubber

The first general purpose synthetic rubber to be manufactured on a commercial scale in the United Kingdom was marketed in 1958. Since then capacity for production of this and other rubbers has increased rapidly. Types of specialised synthetic rubber already in production include high styrene rubbers for shoe soles and flooring, and nitrile rubbers for use where oil resistance is required. Production in 1961 amounted to 106,000 tons, by far the greater part of which came from the styrene-butadiene plant at Hythe, near Southampton. Exports of synthetic rubber were valued at £4.9 million in 1961.

Fertilisers

The production of fertilisers owes much to the pioneer work of the British scientists, Sir John Lawes and Sir Joseph Gilbert, and the research now carried on at Rothamsted, Hertfordshire, and at the Macaulay Institute, Aberdeen, is of world-wide importance. Two firms predominate in the production of fertilisers, and both have established new large-scale manufacturing facilities in recent years. In addition, there are about one hundred firms marketing compound fertilisers from the principal constituents—nitrogen, phosphates and potash. To encourage use, sales on the home market are assisted by Government subsidies paid to the farmer (see p. 340). Output of nitrogenous fertilisers (in terms of nitrogen content) in 1961–62 totalled 442,000 tons, nearly twice the 1948 volume, and 399,000 tons of phosphatic fertilisers were produced (in terms of phosphate content); sales of compound fertilisers in granulated form are increasing. The use of ammonium nitrate (35 per cent nitrogen) and, to a limited extent, urea (45 per cent nitrogen) is resulting in more concentrated fertilisers.

The value of exports of manufactured fertilisers, almost all in the form of ammonium sulphate, totalled £2.6 million in 1961.

Paints

Sales of paint and varnish during 1961 amounted to some 90 million gallons, worth about £133 million; exports accounted for one-tenth of sales, the remainder being

almost equally divided between the domestic and industrial markets. Production has risen from about 72 million gallons in 1954. Exports of pigments, paints, varnishes and related materials in 1961 amounted in value to £30.5 million; about one-third are in the form of ready-mixed paints, which command a growing market overseas. The industry's indirect contribution to exports in the form of surface coatings for finished goods is also considerable.

In recent years the application of improved techniques has resulted in rapid development, in particular the use of important new ranges of synthetic resins and various types of titanium oxide pigment.

Pharmaceuticals

The pharmaceutical industry has expanded greatly since the second world war. Output increased by 85 per cent between 1954 and 1961. The whole range of drugs is produced in the United Kingdom, including sulphonamides, anti-malarial drugs, anti-histamine products, anaesthetics, vaccines, sera, and naturally occurring drugs. Over £6 million per annum is currently being spent on research; most of the major firms have large projects in hand to expand production.

Notable British contributors to the development of new products include: the discovery of penicillin by Sir Alexander Fleming, its evaluation by Sir Howard Florey and E. B. Chain; the evaluation of sulphapyridine (M & B 693) by Sir Lionel Whitby; the introduction of the anti-malarial proguanil; the discovery of griseofulvin; and most recently, the isolation of the penicillin nucleus. A promising development is the Medical Research Council's discovery of 'interferon' for the treatment of virus diseases. Several of the larger pharmaceutical companies in Britain are subsidiaries of overseas firms.

In 1961 exports were valued at £48.8 million. Commonwealth countries were the largest purchasers.

Toilet Preparations, Soap and Cleaning Preparations

The market for detergents has grown rapidly since the war. Petroleum is the principal raw material in the manufacture of organic surface-active agents in detergents; the other main constituent, polyphosphates, is derived from inorganic sources. Sales of detergents amounted to 315,000 tons in 1961. Production of soap was some 433,000 tons. Exports of perfumery and toilet preparations, soap and cleansing and polishing preparations were valued at £28.2 million in 1961.

TEXTILES

The textile industries in 1961 had a labour force of about 903,200 persons, including employees engaged in the production of man-made fibres. Some 139,500 were in the spinning and doubling of cotton, flax and man-made fibres, 130,600 in the weaving of cotton, linen and man-made fibres, 203,600 in the woollen and worsted trades, about 129,300 in hosiery and knitted goods and 82,700 in textile finishing. Over half the employees are women. The total value of textile exports in 1961 was almost £250 million.

Cotton

The invention of mechanical spinning and weaving in the second half of the eighteenth century led to cotton becoming Britain's chief consumer goods industry and cotton piece-goods its largest export during the nineteenth century. In the

twentieth century, increasing foreign competition and the tendency of many countries to set up their own textile industry have cut progressively into British markets. Agreements have been negotiated with industries in certain Commonwealth countries to fix temporary ceilings on their exports to the United Kingdom.

Though it remains one of the largest consumer goods industries, the cotton industry has continued to decline in employment and output in recent years. Output in 1961 consisted of: 455 million lb. of single cotton yarn, 126 million lb. of spun man-made fibre and mixture single yarn, 147 million lb. of doubled yarn, 1,235 million linear yards of woven cotton cloth, and 608 million linear yards of man-made fibres and mixture cloth. In 1961 exports of cotton yarn and woven fabrics (excluding man-made fibres, see p. 316) amounted in value to £56.6 million, including woven fabrics with £40.9 million. Australia (£7 million), South Africa, New Zealand and Nigeria were the most important markets.

Most of the industry is located in Lancashire, the north-east of the county being mainly concerned with weaving and the south-east with spinning. Manchester is the commercial centre. Liverpool is the chief port of entry for raw cotton and the Liverpool Cotton Exchange is the main market for raw cotton dealings.

Legislation to assist the reorganisation of the industry was introduced in 1959. Exchequer funds have paid for two-thirds of the cost of removing surplus capacity, and also provide grants of about one-quarter towards the cost of approved re-equipment and modernisation. The reorganisation schemes are administered by the Cotton Board, a development council, i.e. a statutory body with constitution and powers laid down under the authority of an Act of Parliament.

Scientific and technical research for the industry is carried out by the Cotton, Silk and Man-made Fibres Research Association, formed in April 1961 by a merger of the British Cotton Industry Research Association (Shirley Institute) with the British Rayon Research Association.

Wool

The United Kingdom wool textile industry, the largest in the world, is the most ancient of Britain's staple industries and has been important since medieval times. There are two main branches—woollen and worsted. While about 85 per cent of woollens and 95 per cent of worsteds are made in the West Riding of Yorkshire, Scotland and the West of England have retained their importance as specialised producers of high quality woollen cloth. In recent years an increased amount of man-made fibres has been blended with wool.

In 1961 output included 320 million lb. of tops and 281 million lb. of woollen yarn. Deliveries of worsted yarn amounted to 246 million lb. and total deliveries of woven fabrics were almost 352 million square yards. In addition, large quantities of raw wool are scoured and cleaned in the United Kingdom. Exports of wool yarns and woven fabrics in 1961 were valued at £81.8 million. Raw wool (cleaned or scoured in Britain) and tops exported had a value of £70.9 million and re-exports of wool and hair were worth a further £9.7 million. The United States, Canada, and Western Germany were the chief buyers. There are considerable indirect wool exports in the form of blankets, carpets and clothing (see p. 317). Research is carried on mainly by the Wool Industries Research Association, and the National Wool Textile Export Corporation is responsible for assistance to exporters and the development of new markets.

Over 42 per cent of the net output of larger firms is accounted for by 681 enterprises with fewer than 300 employees. Altogether there are 1,440 firms in the industry. In recent years on the worsted side there has been a tendency towards the formation of

holding companies controlling a number of subsidiaries which combine all the worsted processes within one organisation. Firms on the woollen side are normally organised to include the full process of manufacture from raw material to finished article.

Man-made Fibres

Man-made fibres produced from cellulose were first made commercially available in the United Kingdom in 1905, and much of the early development of viscose rayon and acetate took place in Britain. Large quantities of chemicals are consumed in their production, which is spread throughout the Midlands and Lancashire, with outposts in other areas. In 1961, 308 million lb. of staple fibre and 265 million lb. of filament yarn were delivered by the 9 enterprises which manufacture man-made fibres in Britain. Three of these, each with over 3,000 employees, account for over 90 per cent of net output. By weight cellulose fibres are today responsible for 70 per cent of total output of man-made fibres, and annual production is about 200,000 tons; one company accounts for over four-fifths of total output.

Since the second world war, output of a variety of fully synthetic fibres, derived predominantly from mineral rather than vegetable sources, has been expanding at a rate previously unattained in a major chemical product. Production of nylon, the first fully synthetic fibre, started in Britain in 1941; large-scale production began at Pontypool, in Wales, in 1948, and new factories were opened in 1955 and 1960. Capacity is expected to reach 82 million lb. in 1962. Another type of nylon (nylon 6) is to be produced at Antrim, Northern Ireland. Nylon is used extensively in the manufacture of clothing, fabrics and stockings, and has many industrial uses.

'Terylene', a polyester fibre, was discovered in the United Kingdom during the second world war. It is resistant to fading and is particularly suited to blending with wool. Annual capacity is about 50 million lb. Firms in many overseas countries undertake its manufacture under licence.

A group of fibres of growing importance are known as acrylic or polyacrylonitrile fibres. Two examples are 'Acrilan' and 'Courtelle', and it is expected that polypropylene fibre will shortly be marketed. These fibres are soft and warm and have particular applications in the wool textile industry. Polyethylene has been developed as a monofilament yarn for industrial uses.

Since the advent of rayon and the newer man-made fibres, British textile manufacturers have been developing a number of ways of blending these with natural fibres and with each other in order to produce fabrics with new combinations of texture, colour and finish, and with moisture-absorbent, hard-wearing, drip-dry and crease-resisting properties.

Exports of man-made fibre yarns and woven fabrics had a value of £31.6 million in 1961. South Africa (£3.1 million), Australia (£3.1 million), Sweden and New Zealand were the most important purchasers.

Hosiery and Knitwear

The hosiery and knitwear industry is organised predominantly on a small scale. Over 60 per cent of the 1,100 firms in the industry employ fewer than 50 workers, and only 4 enterprises have more than 2,000 employees. The industry is widely distributed, with Scotland and the east Midlands as the two most important centres. Consumption of yarns totalled about 76,000 tons in 1961, nearly 40 per cent of which were woollen yarns; the proportion of fully synthetic fibres is growing. Exports of stockings and socks in 1961 were worth £2.7 million, and those of knitted underwear

and outerwear totalled £7.8 million; the largest buyers were the United States and Canada. Exports of knitted fabrics amounted to £3.9 million, mainly to Commonwealth countries. Exports by parcel post, which are not included in these figures, are known to be substantial.

The Hosiery and Allied Trades Research Association, with laboratories at Nottingham, undertakes collective research, and is particularly concerned with the improvement of quality.

Other Textiles

Linen has been made in Britain for more than a thousand years and it is believed that the art of linen weaving was being practised during the seventh century. Today it is an industry mainly of comparatively small firms, chiefly in Northern Ireland (the greatest linen manufacturing region in the world), with most of the remainder in Scotland. The principal raw material of the industry is flax, which is almost wholly imported (the chief supplier is Belgium), but considerable quantities of man-made fibres and cotton are also used, and a certain amount of soft hemp and jute, particularly in Scotland. Broadly speaking, the Northern Ireland industry concentrates on the lighter types of fabrics, while in Scotland production is largely, but not exclusively, of coarse linens and canvas. In the ten years to 1960, the industry's investments in new plant and machinery amounted to £12 million. The Northern Ireland Government has given financial aid for re-equipment. Exports in 1961 included £7.4 million worth of linen fabrics, £2.9 million of flax yarns and linen thread. Technical problems are investigated by the Research Institute of the Linen Industry Research Association, formed in 1919.

Jute is manufactured on a large scale in Dundee—the centre of the world's oldest jute industry. About 40 per cent of jute yarn production is utilised in the manufacture of carpets, cordage, ropes and other products. The balance is woven into fabrics for a wide range of uses in the carpet, upholstery, building and motor car industries, as well as its traditional use as a packaging material. Production of jute cloth in 1961 came to about 69,000 tons. The value of exports in 1961 was about £4.9 million (including second-hand sacks and bags).

Research facilities are concentrated at the laboratories of the British Jute Trade Research Association. About £14 million has been spent on a post-war modernisation programme.

Miscellaneous Textile Manufactures

In addition to the products mentioned specifically in this section, British textile firms manufacture a wide range of goods including many special yarns and fabrics, net and lace, household textiles such as blankets, tablecloths and curtains, and floor coverings other than carpets. Exports of these miscellaneous items were worth almost £59 million in 1961.

Carpets

In 1961 manufacturers' sales of carpets (including tufted carpets) in Britain amounted to 74 million square yards. Exports had a value of £10.6 million, including processed imported oriental carpets worth £1.4 million.

There are 135 enterprises engaged in the manufacture of carpets, though only 71 have over 25 employees and 9 firms each employing over 1,000 persons account for 58 per cent of net output of larger firms. In addition to the manufacture of woven

carpets such as Axminster and Wilton, there is an expanding branch of the industry engaged in making tufted carpets, a form of carpeting in which the pile, usually containing a high proportion of artificial fibres, is inserted into a pre-woven backing. There are some 37,000 employees, and the principal manufacturing centres include Kidderminster (in Worcestershire), Halifax and Dewsbury (in the West Riding of Yorkshire), Durham (in north-east England), Glasgow and Kilmarnock (in Scotland). Wool accounts for about 90 per cent of the raw materials used in the surface yarns in carpet manufacture and more than two-thirds of the traditional carpets produced are of a pure woollen or worsted pile.

CLOTHING, LEATHER AND FOOTWEAR

There are over 664,000 employees in the clothing, leather and footwear industries. Some 465,100 are in the clothing industry, 119,700 in the leather footwear trade, 63,900 in leather, leather goods and fur manufacture, and 15,300 in the hats, caps and millinery trades. The aggregate value of their exports in 1961 was £70.5 million.

Clothing

The British clothing industry is the largest in Europe and total production has increased by 25 per cent since 1958. Exports in 1961 were valued at £15.3 million and, in addition, substantial quantities are sent by parcel post.

Although there are some large firms employing mass production methods on an increasing scale, the typical firm is small. Unofficial estimates suggest that five-sixths of the concerns in the industry employ fewer than 100 workers. The principal manufacturing centres are London, Leeds and Manchester, but several firms are also situated on industrial trading estates.

Fashion is important in the production of *haute couture* models and throughout the ready-to-wear industry. Fashion shows are arranged by the Apparel and Fashion Industry's Association and the Fashion House Group of London.

Leather

Leather tanning is one of Britain's oldest industries. In 1961, 27,000 tons of heavy leather and 458 million square feet of upper, lining and other finished leathers were produced. The United Kingdom is the world's leading exporter, with exports in 1961 valued at £18.2 million. The United States, Western Germany and Canada imported the largest amounts.

Tanneries are situated in most parts of Britain, but there are important concentrations in Lancashire, Cheshire, Yorkshire, the north Midlands and the London area. Many different types of leather are produced, ranging from the heavy types for industrial uses such as machinery belting and car upholstery, to high quality leather for footwear and for leather goods, and to gloving and clothing leather.

Research into tanning processes and the improvement of the quality of finished leather is undertaken by the British Leather Manufacturers' Research Association, the foremost association of this type in the world.

Footwear

The British footwear industry is the third largest in the world. In 1961 manufacturers' sales of leather footwear totalled 161 million pairs. Exports of all types had a value of £13.1 million; the United States and Canada were the largest markets.

Factories are located throughout the United Kingdom. Some areas concentrate on production of particular types; for example, the Rossendale Valley region of Lancashire

on slippers, and Leicester and Norwich on women's and girls' shoes. There are about 800 firms in the industry, producing footwear of all types. The British Boot, Shoe and Allied Trades Research Association enjoys a world-wide reputation in all matters connected with shoemaking.

FOOD, DRINK AND TOBACCO

The food, drink and tobacco industries employ over 841,700 persons in the production of a great variety of goods. The value of their combined exports in 1961 was £207 million, of which exports of alcoholic and other beverages accounted for £85.5 million, sugar and sugar preparations for £21.3 million, coffee, cocoa and tea for £11 million and dairy produce for £11 million. Capital expenditure in fixed assets amounted to £130.6 million in 1961.

Bread and Flour Confectionery and Biscuits

The average weekly household consumption of bread per head of population in Great Britain in 1961 was about $2\frac{3}{4}$ lb., about $\frac{3}{4}$ lb. less than in 1954. In England and Wales particularly, the small 'family' type of baker, producing bread by hand or by semi-mechanical methods, is still numerous, but there has been a trend towards concentrating production in large mechanical bakeries; about two-thirds of the bread is made in these bakeries, which specialise in sliced and wrapped loaves; 4 firms have a dominant position. In the smaller bakeries production of cake and other flour confectionery is usually allied to bread production. There are some 2,000 firms and 148,500 employees in the bread and flour confectionery industry; a further 540 firms and 44,800 employees are employed in grain-milling.

Production of biscuits, of which there are about 108 manufacturers with some 57,500 employees, is estimated to be about 80 per cent higher than in the immediate pre-war period. Annual output has been about 546,000 tons in recent years. Weekly consumption of biscuits per head in Britain was about $5\frac{1}{2}$ oz. in 1961. British biscuits have gained a world-wide reputation, and despite the problem of import restrictions in several overseas markets, exports in 1961 were valued at £6.2 million.

Cocoa, Chocolate and Sugar Confectionery

The chocolate and sugar confectionery industry, which has some 104,400 employees, is composed of a small number of very large manufacturers and many hundreds of medium-sized and small manufacturers. Though there are some 660 firms in the industry 49 per cent of net output is produced by 8 firms with over 2,000 employees.

The main ingredients used by the industry are sugar, cocoa beans, glucose, milk, nuts and fats. Production of chocolate and sugar confectionery was 670,000 tons in 1961. Consumption of chocolate and sugar confectionery in the United Kingdom is far higher than in any other country, being equivalent to about 8 oz. per head per week in 1961, compared with 7 oz. per head before the war.

The value of exports of sugar confectionery and chocolate reached the highest ever value of £14.1 million in 1961 and exports of other chocolate products were valued at £2.6 million. The total value of the industry's exports was just over £17 million; Canada and the United States were the main markets.

Fruit and Vegetable Products

Fruit and vegetable products are manufactured in Britain by 378 enterprises, including 11 with over 1,000 employees who account for 65 per cent of net output.

Among the products manufactured are jam, marmalade, sauces and vinegar. The labour force numbers 77,500.

The three largest manufacturers account for two-thirds of total output of jams and marmalade, which has fallen from 329,000 tons in 1949 to 209,000 tons in 1961. Strawberry, raspberry and blackcurrant jams are the most popular.

In 1961, 562,000 tons of canned vegetables were produced. The British Navy was using canned foods in 1813, but rapid development in the industry did not take place until after 1935. Processed peas (182,000 tons) and beans in tomato sauce (203,000 tons) are the vegetables most preserved in cans. In addition, output in 1961 included 90,000 tons of canned and bottled fruit, and 193,000 tons of canned soup. Plums are the most important single fruit used for canning, but the largest tonnage canned is fruit salad, mainly from imported fruit.

The quick freezing of foods has been expanding rapidly in Britain since 1954. Some 68,000 tons of vegetables and 1,200 tons of fruit were preserved by this method in 1961; peas account for 75 per cent of all quick-frozen vegetables.

Aggregate exports of fruit and vegetables in 1961 were valued at £9.3 million.

Bacon Curing, Meat and Fish Products

There are some 980 enterprises, whose principal activities are: the curing of bacon and ham, the canning and preserving of meat and fish, the manufacture of sausages and pies or the preparation of extracts and pastes. The labour force numbers over 75,000. Output in 1961 included 62,000 tons of canned meat and meat products and 203,000 tons of bacon. There has been a rapid expansion of frozen fish output, and some 56,000 tons were produced in 1961; small quantities (3,000 tons in 1961) are also canned. Exports of fish and fish preparations had a value of £6.4 million in 1961, and meat products were worth an additional £5.9 million.

Beverages

The industries which manufacture beer, spirits, wines, cider and soft drinks had a labour force of 102,000 in 1961, and exported products with a value of £85.5 million.

Whisky: Exports of Scotch and Irish whisky reached 27 million proof gallons with a value of £74.4 million in 1961; over half went to the United States. Scotch whisky, which makes up most of this total, was first distilled in the fifteenth century. It is blended from 20 or more different types, some from malted barley and some from other grains. Whisky requires several years to mature, and the 72.7 million proof gallons (a record) produced in 1961 will not be on sale for some years. Stocks of whisky amount to about 327 million proof gallons, of which one-third has been in stock for more than three years. Nearly three-quarters of annual sales are to overseas buyers.

Gin: Production of gin in Britain has risen steadily since the 1950s. The main distillers are situated in London and one company accounts for about half the total output. Although the larger manufacturers also own distilleries abroad, exports had a value of £5.4 million in 1961.

Brewing and Malting: There are 300 enterprises in the brewing and malting industry. In recent years there has been a strong tendency towards the creation of larger brewery units, partly to secure wide distributive outlets for the products of the large brewing groups, many of which market beer throughout the country. Bottled beer consumption is increasing, and today probably accounts for two-fifths of total consumption; draught beer accounts for the remainder. The industry undertakes investment in

fixed assets (including bottling equipment) of about £16 million a year. Firms are experimenting with new methods, including continuous brewing processes.

The main raw materials used in brewing are sugar, hops and malt. Malt is made almost entirely from home-grown barley. Some brewers make all or part of their own malt, others purchase it from independent maltsters who also supply distillers, vinegar brewers, and malt extract manufacturers. British malt is used by brewers throughout the world, and exports in 1961 were worth £1.9 million.

Soft Drinks: The soft drinks industry has expanded rapidly since the second world war, especially since 1954. Output in 1961 included 43.9 million gallons of concentrated liquid and 234.6 million gallons of unconcentrated drinks. The post-war trend has been towards increasing consumption of carbonated squashes, sales of which are seven times greater than in 1939.

Though there has been some amalgamation in recent years, there are still several hundred firms supplying regional markets. There are three very large firms among the twenty producing widely advertised brands which are marketed on a national scale. There is also some degree of specialisation by firms in the production of various types, such as carbonated drinks, cola-based drinks, squashes and cordials, tonic waters and 'mixers', and comminuted drinks (in which the whole fruit is used).

Tobacco

The United Kingdom tobacco industry manufactures almost all the cigarettes and other tobacco goods sold in the country. In 1961 personal expenditure on these goods amounted to £1,218 million (of which over two-thirds was tax revenue) and, in addition, exports worth £18.7 million (over 90 per cent of which were cigarettes) were shipped to a large number of overseas markets. The main centres of production are in and around Bristol, Liverpool, London, Manchester, Newcastle, Nottingham, Glasgow and Belfast. The two largest manufacturing groups now account for about 90 per cent of output. The industry has 47,600 employees.

The tobacco industry used almost 320 million lb. of unmanufactured tobacco in 1961, all of which was imported. The main sources are the United States, Rhodesia and Nyasaland, India and Canada. Most of this tobacco goes to make cigarettes (nearly seven-eighths) and pipe and cigarette tobaccos. Production of cigarettes for the home market is estimated at 110,000 million per annum, about 20 per cent of sales being in the form of filter-tipped brands, consumption of which is expanding. Cigars account for some $\frac{1}{2}$ per cent of tobacco consumption, but sales doubled between 1954 and 1961 to about 315 million.

BRICKS, POTTERY, GLASS AND CEMENT

This group comprises the manufacture of bricks, fireclay, refractory goods, pottery, glass, cement, abrasives, asbestos and other building materials. The total value of its exports in 1961 was £69.6 million. The industries have a combined labour force of 351,000, which includes 79,000 in the bricks, fireclay and refractory goods trades.

Brickmaking and Refractory Goods

About 700 firms manufacture items such as bricks, roofing tiles, chimney pots, fireclay ware and heat-resisting products including furnace and kiln linings. Brick-making, one of Britain's oldest industries, was introduced by the Romans, and manufacturing methods vary from traditional hand fabrication to highly mechanised systems. In 1961 about 7,400 million building bricks were produced; over one-third

were of the Fletton type, made mainly in the Bedford and Peterborough areas. Refractory goods (firebricks, silica bricks, magnesite bricks and chrome-magnesite bricks) are manufactured mainly for home use. Exports in 1961 had a value of £4.9 million.

Domestic Pottery

The domestic pottery industry is one of the oldest craft industries in Britain; the making of domestic pottery dates back to before the Roman occupation. The chief raw materials, china clay, ball clay and china stone, come from Devon, Cornwall and Dorset, where known deposits of high quality are expected to last for about 100 years.

About 95 per cent of production capacity is concentrated in the Potteries area in Staffordshire, comprising the six towns of Stoke, Burslem, Tunstall, Hanley, Fenton and Longton. The 356 enterprises in the industry have about 68,000 employees, of whom many are engaged in the production of table and ornamental ware. Exports in 1961 had a value of £14.5 million, comprising £8.7 million worth of stoneware and earthenware, and £5.8 million worth of china; the United States, Canada and Australia were the chief markets.

Among the famous makes of British pottery are: Wedgwood, Spode, Royal Worcester, Royal Doulton and Royal Crown Derby. Early in 1960 the pottery industry started production of felspathic-type pottery under the name of *English Translucent China*.

Glass

Britain's glass industry, the third largest in the world, has some 68,000 employees. The section of the industry devoted to the manufacture of plate and sheet glass in their various forms is organised for quantity production. Glass can now be supplied in sheets of great size and can be made almost unbreakable. Its use for internal decoration and as a finish for internal and external walls has greatly increased in recent years. Large quantities of safety glass are produced for the motor industry. Other products include glass bricks, tubular glass (produced on a large scale), mirrors, lamp and bulb glass, scientific and medical glassware, glass fibres, and all types of glass container (often made by fully automatic machinery). A traditional product is hand-made lead crystal glassware, of very high quality, much of which is exported.

The advance of the industry is shown by the increase in direct exports of glassware from a negligible level in 1938 to a value of £18.9 million in 1961; this total included £8.9 million worth of plate and sheet glass which was exported mainly to Australia, Canada and the United States.

Collective research is undertaken by the British Glass Industry Research Association, and much research work is also carried on by the Department of Glass Technology at Sheffield University, the first of its kind in the world. A British firm has developed a revolutionary glass-making process for producing 'float glass'.

Cement

The cement industry of the United Kingdom is chiefly concerned with the manufacture of Portland cement. Invented by Joseph Aspdin and patented in 1824, this material and the methods of its production have been the subject of continuous technical improvement and intensive research. The capacity of the industry, which has some 18,000 employees, has increased substantially since the war to meet the growing demands of the building industry. About one-third of production comes

from plants situated in the Dartford-Gravesend district of Kent. Annual output, which reached 7.7 million tons in 1938 had risen to 14.2 million tons in 1961. One group of companies is responsible for about two-thirds of total output. In 1961 direct exports of cement, which have been falling in value, were worth £5.3 million.

PAPER, PRINTING AND PUBLISHING

The paper, printing and publishing industries have a labour force of over 621,800, including 98,800 in the manufacture of paper and board, 68,900 in the production of cardboard boxes and packing cases, 137,700 in the publishing of newspapers and periodicals and 240,600 in other types of printing and publishing. Fixed capital expenditure came to an aggregate £83 million in 1961.

Paper and Board

The manufacture of paper in Great Britain was not firmly established until 1678, but records show that some paper was produced as far back as the year 1492. Total production in 1961 of all types of paper and board amounted to 4 million tons, double the pre-war figure of 2 million tons. Of this, newsprint accounted for 712,000 tons, against 800,000 tons pre-war; since 1953 output of wrapping and packaging paper and board has risen by nearly two-thirds, mainly as a result of its growing use as packaging material. Exports of paper, board and manufactured paper items were valued at £41.2 million in 1961. The bulk of the export trade is to sterling area countries, mainly Australia, South Africa and New Zealand.

Nearly three-quarters of the many different materials used by the industry (totalling some 4 million tons in 1961) comes from abroad. The balance consists mainly of waste paper recovered from domestic sources.

The industry comprises 210 enterprises engaged in the manufacture of paper and board, 495 enterprises which make cardboard boxes, cartons and packing cases and 610 firms who manufacture miscellaneous items such as wallpaper and paper bags. Considerable interests are held abroad, including pulp and paper producing mills in the United States, Canada and other parts of the Commonwealth and in Europe.

Printing and Publishing

The printing industry produces an immense range of goods from national newspapers and periodicals to books, catalogues and greetings cards. The industry includes many very small enterprises. Mergers in recent years have led to the formation of large groups in the newspaper, magazine and book publishing sections. Of the 629 enterprises in the printing and publishing of newspapers and periodicals, 322 have over 25 employees and 22 of these over 1,000 employees; 4 large firms employ more than 7,500 persons. General printing, publishing, engraving and bookbinding remains essentially an industry of small firms with over 75 per cent of the 6,500 firms having fewer than 25 employees.

Total sales of books in 1961 amounted to £79 million, of which some £32 million worth were exported. Popularity of paper-backed books has increased rapidly and the value of sales has increased by 300 per cent since 1953. According to official figures, exports of printed matter, manuscripts and typescripts were valued at £35 million in 1961, including books (£16.5 million), and newspapers and periodicals (£6.1 million); but since these figures do not include parcel post shipments, exports are considerably higher. The United States, Australia and South Africa are the most important overseas markets. A shortage of skilled workers has led many firms to introduce the latest

developments in high-speed printing equipment, including electronic engraving machines and advanced processes of photographic reproduction.

OTHER MANUFACTURING INDUSTRIES

Other manufacturing industries include the timber and furniture group, with some 294,600 employees, rubber manufacture, with 125,400 employees, and a group of miscellaneous manufactures which together embrace some 176,200 employees.

Rubber

The United Kingdom rubber manufacturing industry is the oldest in the world, dating from 1819 when Hancock, the inventor of the first method of processing raw rubber on a commercial scale, set up a factory in London. He afterwards collaborated with Macintosh, the inventor of waterproof garments, and it was another Scotsman, Dunlop, who in 1888 devised the pneumatic tyre. At the present day, tyres and tubes represent more than half the total output of the industry. More recently, British firms have pioneered cellular rubber and latex foam products, and they also make a great variety of other rubber manufactures, the most important being rubber footwear, conveyor belting, cables, hose and thread.

The British industry is the third largest in the world, coming after those of the United States and Russia. There are 470 firms located throughout the country, and in 1961 their consumption of rubber totalled 321,900 tons, including 166,000 tons of natural rubber, 121,000 tons of synthetic rubber and 35,000 tons of reclaimed rubber. There are 14 tyre manufacturers, including several subsidiaries of United States companies. In 1961 they consumed 167,000 tons of rubber, and exported tyres and tubes worth £29.4 million; this figure excludes large indirect exports on vehicles. Exports of other manufactured goods in the same year were valued at £18.4 million.

Furniture

London is the largest centre for furniture manufacturing, but High Wycombe, in Buckinghamshire, is an important centre for domestic furniture manufacture.

Deliveries of domestic furniture had a value of £126 million in 1961; exports were worth £2.4 million. A Furniture Development Council was established in 1949; it undertakes research, training and study in technical and artistic subjects and design, provides a technical information service and publishes statistics.

There are some 2,400 enterprises engaged in the manufacture of wooden furniture in Britain (including domestic, upholstered, office, school and other furniture) with a total labour force of 103,000. Many firms are small and of the 590 larger enterprises, 8 with over 1,000 employees account for 25 per cent of net output. In recent years there has been a tendency towards increased concentration.

Toys, Games and Sports Equipment

There are over 520 enterprises manufacturing toys and sports equipment in Britain, though three large firms with over 1,500 employees account for 31 per cent of net output. The British toy industry is today the largest in Europe; deliveries in 1961 were worth £40 million, and exports had a value of £8.7 million. Australia, the United States and Canada were the main overseas markets. Exports of sports equipment and games were valued at an additional £6 million. The industry estimates that current annual expenditure in Britain on toys amounts to £7 per child; current trends are towards increased production of small-scale precision models of vehicles and equipment and greater use of plastics materials; interest in construction kits is also increasing.

AGRICULTURE, FISHERIES AND FORESTRY

AGRICULTURE

Although Britain is a densely populated, industrialised country relying on imports for half its food supply, agriculture remains one of its largest and most important industries. It occupies nearly one million people, or just under 4 per cent of those in civil employment, provides about 4 per cent of the gross national product, and uses 49 million of the 60 million acres of land.

THE LAND AND ITS USES

Land used for farming is conventionally divided into improved land suitable for cultivation (crops and grass) and rough grazing, nearly all of which is hill or mountain land with a native herbage of coarse grasses, rushes, bracken, heather or scrub trees. Rough grazing has a low potential output—usually assessed at about one-sixth of that of agricultural land—but is valuable for sheep. In England and Wales only about one-sixth of the 29·4 million acres of farming land is classified as rough grazing. In Northern Ireland the proportion is about one-quarter of a total of nearly 3 million acres but in Scotland it is about three-quarters (12·4 million out of 16·8 million acres). In the United Kingdom as a whole there are 30·6 million acres under crops and grass. Improved land and rough grazing together represent 82 per cent of the land area. The rest is mountain and forest, or put to urban and kindred uses. The area available for farming is being gradually reduced to meet the needs of housing and industry; however, the loss is outweighed by the increase in output from what remains.

The soils of the country are extremely varied. Many of those in the west and north, overlying hard rocks, are poor and thin. The lowlands and river valleys are usually fertile, varying in texture from clay to sandy loam, silt and peat. Clay soils everywhere necessitate under-drainage, and as all are constantly leached by rainwater, lime has to be applied at regular intervals. In hill country the area of improved land is often small, but is usually supplemented by grazing on a comparatively large area of hill land.

Size and Ownership of Farms

For many centuries the bulk of land in Britain lay in estates ranging in size from a few hundred acres upwards, comprising farms of varying sizes let to tenants. At all times the tenanted holdings were interspersed with some owned by the farmers who occupied them, and with some peasant or cottage holdings. Social changes of the past half-century have completely changed the pattern of rural life in England and Scotland. Estate duties have been a principal factor in the breaking up of estates. Most surviving estates are still owned by private individuals or family trusts, but the Crown, the

Church Commissioners, local authorities, the National Coal Board, and other corporate bodies hold considerable areas. Of the farms sold, many have been bought by the tenants already in occupation. About half the farms in Great Britain today are owner-occupied.

Although the average size of all agricultural holdings in Britain is about 70 acres of crops and grass, many of them are small holdings which do not provide a full livelihood for their occupiers. In England and Wales, for instance, nearly half the 345,000 holdings are of this type, the occupiers generally having another source of livelihood in addition to farming. Taking full-time holdings only, the average size of holding in England and Wales is about 115 acres of crops and grass. In Scotland the crops and grass area of the 24,000 farms worked part-time average only 11 acres, but for the 31,000 full-time farms the average is 132 acres.

Scotland has two distinct farming zones: most of the good land lies in the east and south of the country, while in the Highlands and Western Islands agriculture is quite distinct from that of the rest of Britain, there being an exceptionally high proportion of rough grazing to improved land. Numerous small occupiers are grouped in scattered villages, each with a tiny area of enclosed land and rights of grazing on an adjoining hill. The Highlands are thus divided between a few large holdings and a great many very small crofts.

In Northern Ireland there are only a few large estates. Almost all the land is divided into about 70,000 holdings varying from a few acres to 300-400 acres. Most of these holdings are occupied by the owner. Some 20,000 are either re-let in conacre (small portions prepared for crops) or owned by people who do practically no farming. Of the remaining 50,000 effective farms, about half can be said to provide a full-time occupation for the owner.

Types of Farming

Most British farms produce a variety of products; the pattern varies from farm to farm. In many districts the mosaic of farms is dominated by one type and the bias towards one product or group of products is so marked that the whole area takes on a distinctive character. In England the farms devoted primarily to arable crops for sale are in the eastern part of the country, in East Anglia, Kent, Lincolnshire, and the East Riding of Yorkshire. Potato and vegetable growing on a substantial scale marks the farming of the Fens (south Lincolnshire and Cambridgeshire), the alluvial areas around the rivers Thames and Humber and the peaty lands in south Lancashire. Elsewhere, horticultural crops are widely dispersed amongst agricultural crops. In Scotland, the rich lowlands of the east coast, the Lothians and a fringe of land around the Moray Firth are also primarily arable.

Interspersed between these arable areas, and also in the Midlands and the south-east of England, there are large tracts where, although much of the land is kept under the plough, the rearing and fattening of cattle is an important enterprise. In the south-west of Scotland dairying is extensively practised, but most of the north-west is devoted to rearing sheep on rough hill land. The parts of England bordering the Pennine hills and most of Wales are also sheep rearing areas, though a good deal of dairying, based on purchased feedingstuffs, is also done there. Dairy farming is widely practised throughout much of the rest of Britain. In Northern Ireland mixed farming is practised, the most important products being pigs, fat and store cattle, milk and eggs, with sheep and stock raising in the hill areas. Oats and barley are widely grown, mainly for livestock feeding, and the only important cash crop is potatoes, both ware and seed.

Tillage and Grassland

Traditionally, in England and Wales old grass is regarded as the property of the landlord; many leases still specify the fields which may not be ploughed, except under penalty. But the tenant is free to sow other fields to grass if he wishes and to plough them out whenever he wishes; so two types of grass came into existence—old or permanent grass, the property of the owner, and temporary grass or ley, a rotational crop of the tenant, its lease of life depending on the system of farming. The ley farming system had its origin in the use of grass in the cereal rotation to restore soil fertility and structure.

In Scotland, which has never had the same tradition, the tenant is free to plough as he chooses, although in practice very high-lying fields are ploughed with the main object of renewal of the grass. The area under temporary grass has always been high.

The situation during the 1939-45 war called for a widespread ploughing out of grass. Since the end of the war, in all parts of the United Kingdom there has been a slow return to permanent grass; but not all of the gain in tillage has been lost and there has been an increase of 2.9 million acres in the area of temporary grass, so that the total arable area remains about 5 million acres more than it was pre-war. On the arable land of England and Wales the old-style rotations have been abandoned, and a cropping system has been adopted which allows a high proportion of cereals, sugar beet and potatoes, with short or medium term leys. The western counties of England and Wales show a heavy bias towards cereal crops with longer leys, and over the country as a whole there has been a tendency for leys to lengthen with improved management of grass. In Northern Ireland, while the greater proportion of the grassland is under permanent grass, medium length leys are a common feature. Scotland, with its choice of crops restricted by soil and climate, has returned to its pre-war pattern of rotational cropping, in which leys occupy more than half the arable ground. Thus, in England and Wales nearly one-half of the 24 million acres of arable and grassland is under permanent grass, about one-quarter under cereals and one-sixth under temporary grass; of the 4.3 million acres in Scotland, only just over one-fifth is in grass seven years old or over, against about two-fifths in grass under seven years old; while in Northern Ireland over a half is permanent grass and about one-quarter temporary grass.

AGRICULTURAL PRODUCTION: CROPS AND LIVESTOCK

Farmers everywhere are exposed to the vagaries of the weather, of pests and diseases, and of the market; but during the present generation much has been done in Britain to mitigate the risks. In part this has been effected through the advance of science, in part through self-help by farmers' organisations, but in greatest measure by Government action. The role of the Government, successively as financial supporter, as war-time controller, and as guarantor and provider of technical and advisory services, is described on pp. 336-47.

Between the two world wars British agriculture suffered a long depression which reached its lowest point about 1930. Yet already the industry was becoming organised: separate National Farmers' Unions had been set up in England and Wales, Scotland and Northern Ireland to give farmers a collective voice; breed societies had been established to watch over the interests of stock breeders; young farmers' clubs were becoming numerous; a chain of research stations had been constituted; and a comprehensive system of university, college and farm institute education was in being.

The extent to which agricultural activity had declined became more apparent with the outbreak of war in 1939. Much land once in arable cultivation had been allowed to

TABLE 18
LIVESTOCK IN THE UNITED KINGDOM 1939-61 (a)

Millions

	1939	1944	1960	1961
Dairy cattle	3.9	4.4	4.8	5.0
Other cattle	5.0	5.1	6.9	7.0
Sheep	26.9	20.1	27.9	29.0
Pigs	4.4	1.9	5.7	6.0
Poultry	74.4	55.1	103.0	114.3
Horses	1.1	0.9	0.2(b)	n.a.

(a) At the annual June census.

Source: *Monthly Digest of Statistics*.

(b) Great Britain only.

n.a. not available

TABLE 19
AGRICULTURAL PRODUCTION IN THE UNITED KINGDOM
(Years beginning 1st June)

Product	Unit	Pre-war average	1946-47	1960-61 (provisional)	1961-62 (forecast)
<i>Crop Production:</i>					
Wheat	'000 tons	1,651	1,967	2,992	2,573
Rye	"	10	39	18	18
Barley	"	765	1,963	4,241	4,974
Oats	"	1,940	2,903	2,058	1,822
Mixed corn	"	76	350	219	169
Potatoes	"	4,873	10,166	7,158	6,203
Sugar beet	"	2,741	4,522	7,215	5,936
<i>Livestock Products:</i>					
Milk	mill. gals.	1,556	1,653	2,460	2,566
Eggs (a)	'000 tons	385	322	725	759
Beef and veal	"	578	537	772	865
Mutton and lamb	"	195	141	243	267
Pigmeat (a)	"	435	211	687	745
Wool (clip)	"	34	27	36	39
<i>Agricultural net output all holdings (a)</i>					
New index (average of 1954-55 to 1956-57=100)				119	122
Old index (pre-war average =100)		100	124	178	183

Source: Ministry of Agriculture, Fisheries and Food.

(a) Includes estimated production from units under one acre.

revert to permanent grass. During the war 7 million acres of the permanent grass were ploughed, the area under potatoes was doubled, and that under wheat and barley nearly doubled. The total number of cattle increased slightly, chiefly owing to larger dairy herds; sheep and poultry stocks declined; and the number of pigs fell by more than half.

Since the end of the war, and particularly since the easing of the balance of payments position permitted freer importation of feedingstuffs, the general trend has been towards the building up of cattle and sheep stocks; the number of pigs and poultry has also greatly increased (see Table 18).

Agricultural Production

The effect of these changes may be judged by reference to the total production of the major agricultural commodities, shown in Table 19.

The general pattern since the end of the war shows a very large increase in all the main crop products (except oats and potatoes), and in mutton and lamb, beef and milk. Compared with pre-war, the 1961-62 output of pigmeat and of eggs had increased by about 70 and 100 per cent respectively, this increase, and also the increase of 65 per cent in sales of milk off farms, being partially attributable to heavier imports of feedingstuffs in recent years. It was estimated that about 6.7 million tons of concentrates were imported in 1961-62, nearly 2½ times the volume in 1952-53, and a further 1.9 million tons would be available as by-products of imported grain and oil-seeds.

In terms of a new index of agricultural net output (average of 1954-55 to 1956-57 = 100) introduced at the 1960 annual review, the forecast for 1961-62 was 122, representing an increase of about 9 per cent in two years. On the old index (pre-war average = 100) the forecast figure for 1961-62 was 183.

TABLE 20

PERCENTAGE OF TOTAL FOOD SUPPLIES IN THE UNITED KINGDOM PROVIDED BY HOME AGRICULTURE

Food Product	Pre-war average	1945	1951	1960	1961 (prov.)
Wheat and flour for human consumption (as wheat equivalent)	12	32	24	24	26
Oils and fats (crude oil equivalent)	16	7	10	12	14
Sugar (refined value)	18	32	23	26	30
Carcase meat and offal	51	50	65	63	67
Bacon and ham (excluding canned)	32	38	49	34	37
Butter	9	8	4	9	11
Cheese	24	10	18	45	46
Condensed milk	70	59	63	95	95
Dried milk (whole and skimmed)	59	49	43	60	65
Shell eggs	71	87	86	97	97
Milk for human consumption (as liquid)	100	100	100	100	100
Potatoes for human consumption	94	100	97	93	94

Source: Ministry of Agriculture, Fisheries and Food.

Food Supplies

Since 1939 the population of the United Kingdom has increased by about 5 million, or slightly more than 10 per cent; yet the total proportion of the nation's food supplied from home sources has increased. Before the war Britain produced (in terms of value) about one-third of its food. It now produces about half; or two-thirds of all that can be grown in temperate climates. The percentages by weight of total supplies of the principal foods provided by home production in relation to the pre-war average are shown in Table 20.

Table 21 shows how, for selected items, total food supplies have changed since before the second world war and since food rationing ended (in 1954). It reflects certain well-known trends. In general, consumption of bulky foods (carbohydrates), such as flour and potatoes, has been declining, while that of high-protein foods, such as meat and eggs, has increased with greater availability and rising living standards.

TABLE 21
FOOD CONSUMPTION IN THE UNITED KINGDOM
(selected items)

lb. per head per annum

	1934-38 average	1946	1954	1959	1960	1961 (prov.)
Flour	194.5	221.2	187.2	168.4	166.4	164.8
Sugar ¹	102.9	79.5	106.1	112.3	111.8	114.1
Fresh and frozen meat ..	90.7	70.8	83.8	89.0	91.6	93.7
Bacon and ham	28.1	15.1	25.0	25.2	25.9	26.3
Poultry	5.1	4.0	5.6	11.2	12.4	14.6
Fresh, frozen and canned fish	21.8	26.3	18.3	17.8	18.2	17.6
Liquid milk	217.1	309.4	328.2	321.6	323.9	326.2
Cheese	8.8	10.0	9.4	9.2	9.8	10.1
Eggs in shell	25.9	18.0	28.4	30.5	30.9	32.1
Butter	24.7	11.0	14.1	18.5	18.4	19.7
Margarine	8.7	15.1	18.3	13.8	13.4	12.7
Dried and fresh fruit ..	86.5	60.0	74.4	82.2	82.3	77.1
Canned and bottled fruit ..	10.3	2.4	10.5	17.4	17.5	17.9
Potatoes	190.0	281.2	242.3	211.4	220.0	221.8
Tomatoes and other fresh vegetables	115.3	130.7	106.9	111.1	117.4	112.3

Source: *Annual Abstract of Statistics*.

¹ Including sugar in all home-produced and imported manufactured foods and in brewing.

Crops

Wheat. The possibilities of wheat growing, which is mainly confined to England, have been changed out of all recognition by the advent of new strong strawed and heavy yielding varieties, mainly from the continent of Europe but some home-bred. These permit the liberal use of fertilisers, and spring dressings of nitrogen have become accepted practice. Crop yields of 2 tons per acre are no longer unusual.

The widespread use of combine harvesters has necessitated the installation of drying and storage facilities on many farms. In addition, such equipment is used on a co-operative basis or by contractors.

Barley. There are two distinct markets for barley—for malting and for feeding to stock. Malting barley has in the past commanded a much higher price than feeding grain, but the disparity has now decreased. New varieties have greatly enlarged yields. Since 1955 both the acreage and production of barley have risen by nearly 70 per cent.

Oats. There has been a decline of almost a half in the total area under oats in the past decade, and even in Scotland, where it is by far the most important cereal, the area has decreased by one-third. No longer needed for horses, oats cannot compete in yield of grain with modern barleys. The crop thrives on acid and high-lying soils and endures damp harvests; and no other can equal it in the fodder value of the straw.

Fodder Roots. In England the turnip crop is giving way to kale and cabbage. The total acreage of fodder crops (except kale) has, however, been declining steadily since 1953 because in many cases farmers can provide winter feed more economically by increased grass production and improved methods of conservation. In Scotland the decline in turnips has been less rapid and the acreage under this crop is now greater than in England. The area under mangolds—grown almost entirely in England—has fallen by 49 per cent since 1953, while fodder beet, after a promising start, is now grown on only a small scale. Rape retains a modest place as sheep fodder.

Sugar Beet. Beet is grown mainly in East Anglia and Lincolnshire where most of the beet sugar factories are situated. The crop is grown under contract to the British Sugar Corporation, which takes the entire output at guaranteed prices and also provides technical advice and assistance. Yields per acre are increasing and in 1960 a record crop of 7.2 million tons was harvested, with a yield of 17.4 tons per acre. Precision drilling is the usual method and more than half the crop is mechanically harvested.

Potatoes. Early potatoes are grown in England and Wales in numerous, widely scattered districts with favourable soils and climate. The crop is marketed during the summer months and reaches the consumer within a few days of lifting. Main crop varieties, which are normally stored before sale, are grown chiefly in the Fen counties, Essex, Lincolnshire and Yorkshire. In Scotland early potatoes are grown in coastal areas of Ayrshire and Wigtownshire, but a substantial part of the industry is concerned with supplying seed potatoes to English and foreign growers. In Northern Ireland both main crop and seed potatoes are produced, and a large part of the crop is shipped to Great Britain and abroad.

Cultivation and raising of the crop is almost entirely mechanical, picking (and some setting) being done by hand.

Dairy Farming

Milk is much more valuable when sold on the liquid milk market than when converted into cheese, butter or other milk products. In Great Britain milk is produced primarily for liquid consumption, but in Northern Ireland the greater part of the milk is used for manufactured products. Production and liquid sales are now much greater than before the war. Sales promotion by the industry is helping to maintain these higher liquid sales. The average consumption per head is now about 5 pints per week.

Average yields per dairy cow are still rising steadily; in England and Wales they have increased during the last decade by nearly 20 per cent and now average about 750

gallons a year. Freedom from tuberculosis has reduced herd wastage, and through the artificial insemination (AI) centres, operated by the Milk Marketing Boards and other organisations, the influence of a small number of high-potential bulls is widely disseminated. The Friesian breed now dominates both AI centres and farms on which bulls are maintained in England and Wales; the Ayrshire breed is still most in demand in Scotland; and in Northern Ireland the Dairy Shorthorn still predominates although Friesians are on the increase. Milk production has also been stimulated by advances in grassland management, intensive grazing techniques and new methods of making high quality hay; new methods of conversion into silage are being exploited. Most dairy farmers practise some degree of intensive grass management, but hay of traditional type remains the basic winter feedingstuff; it is supplemented with purchased concentrates.

Clean dairy farming methods and hygienic standards for equipment and buildings used in milk production are enforced by regulations. The Ministry of Agriculture, Fisheries and Food's Milk Service has a general responsibility for enforcing the regulations and for advising farmers in England and Wales on clean milk production. In Scotland these functions are performed by local authorities but central supervision is exercised by the Scottish Home and Health Department.

Livestock

Beef Cattle. Although home production of beef is considerably greater than it was pre-war, imports are lower and consumption per head has not yet overtaken the pre-war level. Taste is changing and the public no longer wants joints from fully fattened beasts. Normally, it does not pay to feed large amounts of concentrates to fatten cattle, so they are maintained on grazing and the by-products of arable cash crops. In upland regions herds of pure-bred, nearly pure-bred, or cross-bred beef stock are kept on 'natural' lines, the cows calving in early spring and grazing with their calves through the summer. Usually the calves are sold at weaning to farmers with arable fodder and good grazing for fattening. Nowadays much beef derives from the dairy herds, some females (usually the first calf heifers) being mated to beef sires, and suitable breeds of bull being maintained at AI centres. The cross-bred calves make useful beef animals; so too do the pure-bred male calves from Friesian, Shorthorn and some other types of herds. There is a large and complex trade in store cattle, increased by young animals imported from the Irish Republic, whose general movement is from the upland west to grazing areas in the Midlands and arable areas of the east.

Sheep. Britain has outstandingly good pastures for sheep. Moreover, veterinary researches have provided vaccine and sera protection against nearly all the epidemic diseases to which sheep are subject. More than thirty breeds and innumerable crosses are to be found in Britain, each breed having originated within a circumscribed area. The basic stocks are everywhere maintained by local selection, but lowland flocks are continually reinforced by fresh blood from the hills.

In the hills, and especially in the Highlands, winter conditions are usually severe. Draft ewes and lambs are brought from the hill areas every autumn to swell the lowland flocks, usually in two stages: firstly, to farms at intermediate altitudes, where they are mated with rams of a larger and more rapidly maturing breed; then, the cross-bred progeny pass on in due course to the more genial lowland conditions and especially to the Midlands and the south and east of England, where they become crossed again with a variety of sires. The hill breeds bring in hardiness and the first-cross sires fecundity and early maturity.

Wool, at one time of relatively little value, is now of importance to the sheep farmer; research into breeding for wool is being undertaken, notable among Welsh flocks. But the prime purpose of British sheep farming today is the production of fat lambs, in response to the change in the preference of consumers away from mature sheep. Leys are largely relied on for fodder, although in Scotland the turnip crop is still of considerable importance.

Pigs. Pig production is a complex enterprise, owing to the varying uses to which the carcass is put. In Britain the carcass has always been used in three different ways: for curing as bacon, for sale in fresh condition as pork, and for sausages or other processed forms, in that order of importance. For the several trades, pigs of three different weight ranges seem to be called for but leanness is desirable in all three.

Breeders, in the main, aim at the long type required by bacon curers, for which there is a grading system based on weight, carcass measurements of length and back-fat. The native Large White breed yields carcasses conforming closely to these requirements. Some breeders in search of extra length have infused Landrace blood, imported from Scandinavia. Others have turned to pure Landrace herds. For the trade in pork and meat for processing, the Large White boar is generally used.

Apart from type, breeders' attention is now focused on utility qualities, such as size and weight of litters, and on food consumed per pound of liveweight gain. Litter recording and the progeny testing scheme operated by the Pig Industry Development Authority are providing basic data. This authority, set up under the Agriculture Act, 1957, promotes improvements in the production of pigs and in the processing and distribution of pigmeat.

Poultry. Most farmers keep some poultry but a considerable number of the birds in the country are kept on non-agricultural holdings, whether in backyards or on a commercial scale. In the past 20 or 30 years specialist techniques have been used increasingly and the industry has become more intensive. In consequence, by 1961 over 30 per cent of laying birds on farms were in flocks of 1,000 or more and the number of farms on which these large flocks were kept had increased also. With the rise in the poultry population and in the yield of eggs per bird, the estimated production of eggs has reached double the pre-war level and for several years nearly all eggs consumed in Britain have been home-produced.

Within the industry the trend is towards specialisation in the breeding and supply of stock and in the production of eggs and table poultry. The mass production of special table chickens, or 'broilers', has now become a major industry; it is estimated that about 140 million birds were produced in 1961.

Horticultural Crops

Horticultural crops occupy only a tiny fraction of the cultivated land of the country—less than 2½ per cent of the area under crops and grass—but their value in terms of output per acre is very high. The total value of horticultural crops sold in 1961–62 is estimated at about £165 million, compared with some £275 million for farm crops. About 400,000 acres are under vegetables and about 280,000 acres under fruit.

Market gardening has grown up around all the large centres of population, and in the Thames valley, for example, some very large capital investments have been made. It has also flourished in more rural areas with favourable soil or climatic conditions—in Bedfordshire, Cambridgeshire, Hampshire and Kent, and in the Avon valley in a concentration of smallholdings around Evesham. Districts with mild climates, such as the Penzance region of Cornwall, have been favoured for the production of selected

early crops. More recently, selected vegetable crops have been grown in increasing quantities by farmers as an alternative to potatoes: this applies particularly to brassicas and to peas for canning, drying and quick-freezing.

Specialised horticultural holdings range from a few acres up to about 300 acres, and many have glasshouses, frames or forcing houses. Use of fertilisers, particularly of an organic nature, is very heavy, and much of the field work is mechanised. The larger holdings normally have specialised packing sheds, with washing and grading machinery, and irrigation plants. More and more growers, however, are coming together in co-operatives for marketing their produce and many of these co-operatives provide grading and packing facilities for members.

Britain has some 4,000 acres of glasshouses, more than half of the area being used primarily for the cultivation of tomatoes, the main centres of which are the Lea Valley in Essex and Hertfordshire, and the Worthing district in Sussex. In the Lea Valley, on a narrow belt of gravel and brick earth, about 800 acres are covered with glass. Total production of tomatoes in the country is estimated at about 85,000 tons, and the value of all glasshouse crops at about £27 million per year.

Hard fruits grow well in many parts of England and Wales, the chief risk associated with their culture being late frosts. The main centres are in the south, south-west and east of England, and Kent in particular. Production of apples has been about equally divided between cooking and dessert varieties, with Cox's orange pippin heading the latter group, but production of cooking apples is now declining. About 40,000 acres of varieties of cider apple are grown mainly in Devon, Herefordshire and Somerset for the cider-making industry. In Northern Ireland there are 8,000 acres of cooking apples—Bramley Seedlings—mostly concentrated in County Armagh. Plums and soft fruits are grown in many counties; concentrations of plums are found in Kent and Worcestershire, of blackcurrants in Norfolk, of cherries in Kent and of strawberries in Norfolk, Kent and Hampshire. Raspberries are exceptional in that of some 9,000 acres grown in Britain nearly three-quarters are in Scotland, mainly in the Blairgowrie district of Perthshire and in Angus.

Hop-growing for the brewing industry is confined to two main areas, in Kent and Sussex and in Herefordshire and Worcestershire. Capital outlay and cultivation costs are very high, but crops average about 12 cwt., worth some £360, per acre. The total annual value of the crop is about £7½ million.

FARM EXPENDITURE AND EARNINGS

Estimates of farm expenses and sales and the aggregate net income of agricultural producers are prepared annually by the agricultural departments.

The estimates show that Britain's farming is based on livestock; fully two-thirds of farmers' income in Britain is derived from the sale of animals or their products. The aggregate net income of farmers, after fluctuating around £350 million for some years, exceeded £400 million for the first time in 1961-62. The annual cost of Government support to the industry has ranged between approximately £240 million and £350 million.

Until 1953-54 labour costs were the largest item in farm expenses, but since then, feedingstuffs have accounted for the highest proportion. Although the number of farm workers has dropped by over a quarter since 1949, the responsibilities of those remaining have correspondingly increased and rising wages have caused labour costs to increase by one-third in the same period.

Since 1945 rents have lagged behind other costs. This has been due partly to the reluctance of landlords to put up the rents of satisfactory tenants, and partly to the

terms of reference given to arbitrators by legislation repealed in 1958. Since 1959-60, however, average rents in England and Wales have gone up by more than one quarter and many farms are being let by tender at highly competitive rates—often £5 to £6 per acre.

Capital Requirements

The capital required for land and buildings may be provided by the farmer, if he is an owner-occupier, or by the landlord, if the farm is let to a tenant. Each year 'fixed capital' totalling some £30-35 million is added to the value of land and buildings. The bulk of the capital required to stock and run the farms is provided by the occupiers. Bank advances are an increasingly important source of outside capital, both fixed and working; about half the total bank advances to agriculture are believed to be for short-term purposes. Agricultural merchants are also an important source of short-term credit.

Accounts of some 2,300 farms in England and Wales, analysed by university agricultural economists, show average valuations of occupiers' capital ranging from £20 to £50 per acre. In Scotland a similar sample of 900 accounts shows a wide range in tenants' capital per acre, from about £2 on hill sheep farms with extensive rough grazings to between £40 and £50 per acre on lower ground farms. In Northern Ireland, on the small intensive farms, occupiers' capital ranges from £50 to £70 an acre. Dairy farms are usually more heavily capitalised than other types of stock farms. On all types of farms machinery is a heavy item; on dairy farms it is often £15 per acre and on arable farms up to £20 per acre; even on stock rearing farms it may amount to £5 per acre.

Mechanisation

The best single measure of mechanisation is perhaps the rate at which horses have been replaced by tractors. In Great Britain the number of farm horses fell from about 649,000 in 1939 to 54,000 in 1960; tractor numbers rose from 117,000 in 1942 to 481,000 in 1961. Britain now has one of the heaviest tractor densities in the world: one to every 36 acres of arable land. Power-take-off implements now characterise arable farming; and some 54,000 combine harvesters were in use in the 1961 harvest. A wide variety of machines for harvesting and preservation of grass are employed. Milking machines are installed on all except the smallest farms, many with mechanical means of handling milk. Four-fifths of the farms in Great Britain have an electricity supply and accompanying equipment. There are over 200 farmers' machinery syndicates through which farmers have the use of expensive equipment without tying up their own capital (see p. 341).

Research, development and testing of farm machinery are carried out at the National Institute of Agricultural Engineering in Bedfordshire. This Institute developed the first farm tractor in the world employing hydrostatic transmission and also one of the most effective complete potato-harvesters now in production.

Net Income

The range of profits between individual farms is very wide, varying with the size of farm, quality of land, and managerial ability of the occupier. Farms do not lend themselves readily to exact classification by type, so even averages must be treated with caution. Nearly all group averages of recent years, however, show profits of £5 to £10 per acre: there is a marked tendency for small farms to show higher profits per

acre than large ones, owing principally to the higher proportion of profit represented by personal work on the small farm.

Profits on arable farms have, with occasional seasonal exceptions, been maintained at a higher level than on other types; dairy farming has shown consistent but moderate profits, while those on stock-raising farms have usually been low, except where arable sale crops are also grown or pedigree stock is bred. The profitability of pedigree stock breeding can be assumed from the rise in prices for breeding animals throughout the period. Exports of livestock other than horses were valued at over £12.5 million in 1961 and exports of horses at £7.8 million.

THE ROLE OF THE GOVERNMENT

During the last hundred years the Government has played an ever-increasing part in British agriculture. Since the opening up of the great primary-producing countries of the New World and the Antipodes in the latter part of the nineteenth century, producers of food had been at a disadvantage because supplies tended to exceed effective demand. One answer to the problems posed for British farmers by this situation would have been to discourage imports of primary products, but Britain, being a great trading nation, was always reluctant to impose import duties in defence of its agriculture—by then a relatively small part of the nation's economy; such a course would have cut back trade, handicapped exports of manufactured goods and raised the price of food. By the beginning of the 1930s, however, the need for some form of State assistance to agriculture had become pressing; during the following decade and subsequently, the main object of the Government's agricultural policy was to find methods of supporting domestic agriculture without prejudice to Britain's position as a world trading nation.

During the 1930s the Government initiated various forms of protection and financial assistance for agriculture. Commodity commissions were set up for wheat and livestock, with responsibility for administering Government subsidies or other forms of direct financial assistance for the production of those commodities: the British Sugar Corporation took over the sugar beet factories, and producer-controlled marketing boards were established with powers to regulate the marketing of milk, pigs and bacon, hops and potatoes. In 1934 subsidy payments were introduced to encourage the production of beef cattle, and in 1937 the Government assumed powers to pay acreage subsidies to assist producers of barley and oats.

During the second world war and the immediate post-war years, agricultural production was closely controlled by the State, with County War Agricultural Executive Committees, composed of landowners, farmers and farm workers, acting as the Government's local agents. As a result of Government control, purchase and rationing, the functions of marketing boards and commodity commissions were largely suspended. To ensure a reasonable standard of living for farmers and farm workers, while at the same time keeping the cost of living steady, most of the basic farm products were purchased at fixed prices on Government account and sold at controlled prices, often below the cost of procurement; the difference in price was borne by public funds. This practice continued as long as rationing lasted.

Post-war Policy

Government policy today is founded on the Agriculture Act of 1947. The main objective, as set out in Section 1 of the Act, continues to be 'a stable and efficient agricultural industry capable of producing such part of the nation's food and other agricultural produce as in the national interest it is desirable to produce in the United

Kingdom, and of producing it at minimum prices consistent with proper remuneration and living conditions for farmers and workers in agriculture and an adequate return on capital invested in the industry'. To this end, the Government is empowered to provide, for the main agricultural products, guaranteed prices determined in the light of annual reviews (see p. 338).

Post-war policy falls broadly into two periods, with the dividing line about 1954. During the first, the chief aim was to encourage expansion and a return to something like the traditional pattern of British farming. 'Production objectives' were set for each of the main commodities, as they had been during the war, though the Government gradually ceased to direct farmers what to grow. By means of additions to the prices fixed at annual reviews, £40 million per annum were injected into farm incomes to provide additional working capital for expansion. The Hill Farming Act of 1946 offered grants for the rehabilitation of hill farms and, by encouraging investment in fixed equipment, set the pattern for later legislation.

As world supplies of food and Britain's own agricultural production and trading position improved, the Government gradually restored to private business both the importing of food and domestic trading in food. The last remnants of consumer rationing of food were abolished on 3rd July, 1954. Since the ending of the period of scarcity, policy objectives have changed: stress has been laid on more economic production of food of the kinds and qualities demanded by the market, rather than on indiscriminate expansion of production. By 1957 the immediate objective of a 60 per cent increase in production had been achieved, and attention was turned to long-term measures. The Agriculture Act of that year assured farmers that the prices guaranteed under the Act of 1947 would not be steeply reduced, and at the same time provided grants towards the cost of bringing fixed equipment up to date. In 1959 the problem of the small farm business was tackled. In the following year, grants were made available for buildings and equipment for horticulture, primarily with the object of improving the presentation and marketing of horticultural produce.

Machinery of Government

The functions of Government in relation to agriculture are mostly exercised by the agricultural ministers, that is to say, for England and Wales the Minister of Agriculture, Fisheries and Food, for Scotland the Secretary of State for Scotland, and for Northern Ireland the Home Secretary, who is the minister responsible for United Kingdom aspects of Northern Ireland agriculture, local aspects being the responsibility of the Northern Ireland Minister of Agriculture. The agricultural ministers are assisted by a number of advisory committees composed of general agriculturists and specialists.

The headquarters of the Ministry of Agriculture, Fisheries and Food is divided functionally, each division being responsible for a particular subject or service. Its relations with individual farmers are conducted mainly through its local offices, grouped in England in regions, each administered by a regional controller working in close collaboration with the regional heads of the technical services. Local offices in Wales are grouped under a Welsh Secretary, with similar functions and with special responsibility for Welsh affairs. County Agricultural Executive Committees—successors of the War Agricultural Executive Committees—have a number of duties, including those of promoting technical development and advising the minister on local aspects of policy.

In Scotland most of the agricultural functions of the Secretary of State are discharged through the Department of Agriculture and Fisheries, which has its headquarters in Edinburgh, with the help and advice of 11 Agricultural Executive Committees.

The Secretary of State also appoints the members of two commissions: the Crofters Commission, which has powers to deal with the unique and difficult circumstances of crofting in the Highlands and Islands, and the Red Deer Commission, which has the general functions of furthering the conservation and control of red deer and of keeping under review all matters relating to them.

Two Agricultural Improvement Councils, one for England and Wales and one for Scotland, advise the respective agricultural ministers on the problems of the industry that require research and on the dissemination of research results to working farmers.

The Northern Ireland Ministry of Agriculture is responsible for implementing agricultural policy inaugurated by the Northern Ireland Government. It is organised on similar lines to the Ministry of Agriculture, Fisheries and Food, for which it acts as agent in the administration in Northern Ireland of United Kingdom agricultural schemes. Its administrative headquarters are in Belfast and each of the six counties has an Agricultural Executive Officer.

CURRENT SUPPORT POLICY

Annual Review

In February each year, in accordance with the Act of 1947, the agricultural ministers review the economic condition and prospects of the industry. Between annual reviews, a special review may be held if the ministers consider it warranted, but this has seldom been necessary. In holding reviews, the ministers are required to consult with representatives of agricultural producers—in practice, the three farmers' unions in the United Kingdom. The ministers consider such factors as production trends and market requirements, world market prospects, the cost of subsidies, the trend of profits in the industry as a whole, the increasing efficiency of the industry and changes in production costs, trading relations (especially with the Commonwealth) and the national economic situation. In the light of their conclusions, they determine guaranteed prices for fat cattle, fat sheep, fat pigs, eggs, wool, milk, cereals, potatoes and sugar beet. These guarantees apply to livestock and livestock products for the ensuing twelve months, and to crops to be harvested in the current year. Various grants in aid of particular kinds of production or farming practice (known as 'production grants') are also considered. Any changes in 'relevant' production grants (broadly, those payable to occupiers rather than landowners) are taken into account. The Government's conclusions and its decisions on changes in guaranteed prices and relevant production grants are published as a White Paper.

The long-term assurances provided for in the 1957 Act require the total value of the guaranteed prices and relevant production grants in any year to be maintained at not less than 97½ per cent of their value in the preceding year, after allowing for changes in costs. In addition, the guaranteed price (adjusted for any change in the basis of the guarantee) for each commodity must be not less than 96 per cent of that of the previous year. For livestock and livestock products—where farmers' decisions need time to take effect—there is a further provision that reductions in the guaranteed price for any product must not total more than 9 per cent in any period of three years. The cost of Government support to the industry in 1961-62 was £351 million, some £88 million higher than in the previous year. The major factor in the rise was the greatly increased expenditure on price guarantees for fatstock. The estimated cost of support for 1962-63 is £339 million, but changes made at the 1962 annual review and the increase in the retail price of milk reduce this by £15 million to £324 million.

Price Guarantees

The general policy of the Government is to use methods of agricultural support that allow the ordinary channels of trade to flow freely. The form of guarantee most generally used is the deficiency payment, which means that the Government makes payments to producers, related to the differences between the average market price realised and the guaranteed price, for output eligible for the guarantee.

The deficiency payments schemes for cereals and fatstock are administered directly by the agricultural departments. Payments for wheat and rye are based on the quantity of millable grain sold and delivered by the grower. For barley and oats, much of which is consumed on farms, payments are based on the acreage grown. New arrangements first introduced for the 1961-62 season provided growers with an incentive to hold barley until later in the season. Deficiency payments for fatstock are made weekly to individual producers on certified sales on a liveweight or deadweight basis. The weekly standard prices for fat cattle and fat sheep vary on a seasonal scale; for pigs there is no seasonal scale but the weekly prices are adjusted for changes in feed costs and, under a new flexible guarantee arrangement introduced after the 1961 annual review, adjustments may also be made quarterly by reference to a forecast of the number of pigs likely to receive the guarantee payment during a period of 12 months.

For most of the remaining commodities the Government operates the guarantee through the appropriate marketing board, which takes account of any payments from or to the Government in deciding what to pay producers for their produce. In the case of milk there are five such boards, and the full guaranteed price applies only to a 'standard quantity' which includes all milk sold for liquid consumption, together with part of that going for manufacture. For milk in excess of its standard quantity a board receives only a lower guaranteed price, but there is a profit and loss sharing arrangement between the Government and each board, to encourage the boards to get the best prices they can for milk for manufacturing. The retail price of liquid milk is determined by the Government so as to cover the full cost of the guarantee, and taking one year with another there is no subsidy. For eggs, a flat rate subsidy (also subject to a profit and loss sharing arrangement) is paid to the British Egg Marketing Board on all eggs sold to the board through packing stations. So far as potatoes are concerned, a deficiency payment is made in years in which the average British growers' price for potatoes for human consumption (excluding new potatoes) is less than the guaranteed price. Payment is made to the Potato Marketing Board (see p. 345) for the benefit of growers in Great Britain and to the Ministry of Agriculture, Northern Ireland, for the benefit of growers there.

For wool a fixed price is guaranteed to the British Wool Marketing Board for every pound of fleece wool it buys from producers. This enables it to fix in advance a schedule of producers' prices, based on types and quality, after making allowance for its marketing costs.

Under the Sugar Act, 1956, and the Agriculture Act, 1957, the British Sugar Corporation contracts to buy the whole of the sugar beet crop produced from a specified acreage (at present 414,600 acres) at a scale of fixed prices, determined as a result of the annual review and related to sugar content. Refined sugar produced by the corporation is sold, under market-sharing agreements with the refiners, at a price based on the world price.

The Sugar Board buys Commonwealth sugar under the Commonwealth Sugar Agreement and sells it commercially. The deficits or surpluses which result from the transactions of both the corporation and the board are ultimately reflected in the board's accounts. When these accounts show a deficit, a levy is charged on all sugar

imported or home-produced, entering the United Kingdom market, including the sugar content of composite sugar imports, and when there is a surplus, a distribution payment is made correspondingly, so that taking one year with another the board balances its account.

Production Grants

The following are the main grants and subsidies which are 'relevant production grants' for the purposes of the Agriculture Act, 1957, and the annual review.

Fertilisers and Lime. Schemes under the Agriculture (Fertilisers) Act, 1952, provide grants to assist farmers in the purchase of nitrogenous and phosphatic fertilisers. Farmers can also obtain a refund of more than half their costs of liming the land to improve soil fertility.

Ploughing up Grass. Ploughing grants are available for land that has been continuously under grass for not less than three years, to encourage the regular ploughing up and extended use of leys.

Silo Grants. Grants amounting to about half the cost of approved projects, up to a maximum of £250 a farm, are available under the Agriculture (Silo Subsidies) Act, 1956, for constructing and improving silos for conserving grass and fodder.

Calf Subsidy. To stimulate the breeding and rearing of calves suitable for beef production, a subsidy is paid to the rearer of suitable calves at the rate of £9 5s. a head for steers and £7 10s. a head for heifers.

Hill Cow Subsidy. To encourage the production of breeding cattle on hill farms, a subsidy of £12 per head is paid on breeding herds maintained on hill and upland farms.

Small Farmers. To establish on a firm economic basis small farm businesses whose main handicap is lack of working capital, grants are offered to small farmers who carry out three-, four- or five-year improvement plans approved by the agricultural departments. The limit is £1,000 for any one business.

Destruction of Rabbits, Wood Pigeons and other Land Pests. The principal mammals and birds in Great Britain harmful to farming are rabbits, wood pigeons, rats, mice, moles and, in the north, carrion crows. Occupiers are responsible for dealing with pests on their land and for seeing that they do not spread to neighbouring properties. To encourage co-ordinated action, the Government pays a grant of half the expenditure incurred by rabbit clearance societies in the systematic destruction of rabbits and wood pigeons; over 800 rabbit clearance societies have been registered in Great Britain. A similar grant is paid for the control of coypu, which have been spreading in East Anglia. Contributions are paid to fox destruction societies to encourage organised control of foxes in open country where there is no hunting.

Grants for Long-term Improvements

In addition there are several types of grants for long-term improvements which are not 'relevant production grants'. Among them are the following:

Farm Improvement Scheme. Under the Agriculture Act, 1957, grants are available to the owners and occupiers of agricultural land towards the cost of improving certain kinds of fixed equipment, including farm buildings, roads and fences, and the supply of electricity. The rate of grant is one-third of the cost. Grants are also available towards the incidental costs of amalgamating uneconomic holdings.

Hill Farming. Under the Hill Farming and Livestock Rearing Acts, 1946-59, grants are available to the owners and occupiers of upland farms suitable only for rearing

livestock as their main enterprise. (The Acts also apply to some lowland areas in the north of Scotland where conditions are similar.) Grants amount to 50 per cent of the cost of comprehensive schemes for putting the farms in sound working order.

Horticulture Improvement Scheme. Under the Horticulture Act, 1960, grants are available to horticulturists, to the landlords of land used for horticulture and, in some cases, to horticultural marketing co-operatives. The range of improvements towards the cost of which grants of one-third may be made includes plant and equipment designed to improve the storage or preparation of produce for the market.

Farm Drainage and Water Supply Schemes. The State contributes towards the cost of land drainage and water supply. In England and Wales, for example, grants for farm drainage may be up to 50 per cent of the approved cost. Farm water supply grants are at the rate of 25 per cent of the approved cost where the connection is to a public main, and 40 per cent where a private source is utilised. Grants of up to 50 per cent are available in Scotland and Northern Ireland for farm drainage and towards the cost of installing and improving farm water supplies. Separate legislation provides grants for these services in Northern Ireland.

Farmers' Machinery Syndicates

The Government makes one-third capital grants towards expenditure incurred by landowners or farmers in providing buildings to house machinery and grain drying and storage equipment for use by farmers' machinery syndicates (see p. 335).

Horticulture

Horticultural produce, because it is perishable and is liable to great variations in quantity and quality from season to season, does not lend itself to a system of guaranteed prices. Instead, horticulture enjoys through import duties a measure of protection comparable to that afforded to agriculture by the guarantee system. Where appropriate different tariffs on horticultural produce apply at different times of the year so as to allow imports to enter more freely at times when they do not compete with the home crop. Certain of the production grants are available to growers on the same terms as to farmers. Marketing arrangements are described on p. 345.

OTHER GOVERNMENT ASSISTANCE AND ACTION

Land Use

It is an integral part of the Government's planning policy (which is administered in England and Wales by the Ministry of Housing and Local Government, and in Scotland by the Scottish Development Department) that the better agricultural land should not be taken if there is less valuable land that would serve the purpose. The Ministry of Agriculture, Fisheries and Food assists in carrying out this policy in England and Wales by providing expert advice to planning authorities and other departments on the implications, from the standpoint of the public agricultural interest, of all substantial proposals to take agricultural land for other purposes. Appropriate arrangements exist for the Ministry to be consulted about such proposals. In Scotland similar arrangements exist for the Department of Agriculture and Fisheries to give advice.

Agricultural Credit

The Government has never pursued a general policy of making credit available to agriculture on easy terms. Nevertheless, a number of facilities for specific purposes enjoy government encouragement and support.

In England and Wales finance for the purchase or improvement of agricultural property is available from the Agricultural Mortgage Corporation Ltd. and takes the form of a loan on the security of a first mortgage on freehold agricultural land and buildings or of an improvement loan against the security of a terminable rent charge created on the land improved. The corporation's funds are derived mainly from public issues of stock, but it receives a measure of government support. In Scotland, loans for agricultural purposes secured on agricultural land in Scotland are granted by the Scottish Agricultural Securities Corporation Ltd.; this corporation also receives support from the Government.

Improvement loans for carrying out improvements to agricultural land and buildings are also available to landowners from the Lands Improvement Company, whose funds are provided privately. The amount of such loans is charged on the land and buildings in the form of a terminable rent charge. Improvement loans require the sanction of the agricultural ministers.

In Northern Ireland loans are available to farmers for a wide range of purposes from the Agricultural Loans Fund administered by the Ministry of Agriculture and financed out of public funds. The bulk of the loans issued are short-term and are for such items as agricultural machinery, but in the case of buildings the period may be extended to thirty years. No loans are advanced for purchase of land.

Smallholdings

Since 1892 county councils and county borough councils in England and Wales have had powers to provide smallholdings. Legislation imposes on county councils an obligation to provide smallholdings and enables the Minister of Agriculture to contribute towards their losses. The aim was at first to foster a peasant economy, but later to provide holdings for ex-Servicemen of the 1914-18 war, and then for the unemployed. Now, under the Agriculture Act, 1947, the object is to give opportunities for persons with agricultural experience, particularly agricultural workers, to become farmers on their own account. In England and Wales, about 16,000 smallholdings are provided by local authorities and about 1,300 by the Ministry. Of the smallholdings provided by the Ministry, approximately 1,000, situated on 18 different estates, are managed by the Land Settlement Association Limited, which was originally formed in 1934 for the purpose of developing smallholdings for unemployed men from industrial areas. The association provides centrally on each estate various services for the tenants' use, including the supply of agricultural stores and requisites, the operation of a machinery pool, and the packing and marketing of produce.

The Minister has power under the 1947 Act to make loans for working capital to tenants of statutory smallholdings. In this way they can be helped to obtain livestock, machinery, implements and other necessary items; tenants must, however, have available at least 25 per cent of the capital required.

Land settlement in Scotland has always been carried out by the central Government, which now owns and maintains some 436,000 acres of land settlement estates, with over 4,000 holdings.

Crofting

In the seven Scottish counties known as crofting counties—Argyll, Caithness, Inverness, Orkney, Ross and Cromarty, Sutherland, and Shetland—much of the land is farmed by crofters, tenant farmers whose holdings are generally either rented at a cost of not more than £50 a year or have an area not exceeding 75 acres.

In these counties there are about 20,000 crofts, which produce about one-quarter of the total agricultural output of the area. The special problems of the crofting counties,

which had for some time been suffering from a declining population and falling agricultural production, led to the setting up, in 1955, of a Crofters Commission whose functions are to reorganise, develop and regulate crofting in the crofting counties, to promote the interests of crofters and to keep under review matters relating to crofting. The commission's powers, embodied in the Crofters (Scotland) Acts of 1955 and 1961, include that of carrying out reorganisation schemes in 'townships' (crofting communities) if a majority of the crofters agree, by reallocating the land in a way which, in the commission's opinion, would lead to the proper and efficient use of the land and the general benefit of the township. The commission has also powers over the letting and sub-letting of crofts and it is responsible for approving regulations governing the use of common grazings. It acts as agent for the Secretary of State for Scotland in the administration of schemes of loans and grants for the development of agricultural production on crofts, and collaborates with other bodies in carrying out measures for economic development and social improvement in crofting areas.

Arterial Drainage and Sea Defence

Land drainage in England and Wales is administered by 34 river boards¹ and 400 internal drainage boards. Each river board area comprises a major river system. They cover the whole of England and Wales, apart from the London area. There are no comparable boards in Scotland, where drainage is the responsibility of owners and occupiers of land. River boards have powers to maintain and improve watercourses scheduled as main rivers. Their work is concerned with the improvement of land drainage by increasing the capacity of rivers and erecting pumping stations, the prevention of inland flooding—both urban and agricultural—and the erection of defences to protect low-lying areas from coastal flooding. River boards also have powers relating to freshwater fisheries and river pollution.

Internal drainage boards are concerned with very much smaller areas and their work is chiefly in low-lying agricultural areas. Their main function is to keep the land drained in their area by improving the main drains and, where necessary, by pumping from low-lying land.

The boards derive their income directly or indirectly from rate-payers. The Government pays grants towards the cost of the improvement schemes carried out by both types of board. Grants to river boards vary from 20 per cent to 80 per cent according to the financial position of the board. Internal drainage boards receive grants at a flat rate of 50 per cent.

The gross capital expenditure of drainage authorities on new and improved works is now nearly £8 million a year. Government grants, including grants towards the repayment of loans raised in previous years, amount to over £4 million. Drainage authorities' expenditure on maintenance is estimated at about £2½ million a year and is rising steadily.

The Land Drainage Act, 1961, extended the powers of river boards to deal with arterial watercourses. The Act also improved the administrative provisions of the Land Drainage Act, 1930, and extended the land drainage powers of local authorities.

¹ River boards are composite bodies representing local government, agricultural and fisheries interests. The Thames Conservancy Board and Lee Conservancy Catchment Board are similar in constitution and powers to the river boards; because London draws most of its water supplies from these two rivers, however, they have long been regulated under the powers granted by Acts of Parliament of purely local application. Legislation is proposed whereby 27 river authorities would supersede the river boards and assume their functions; they would also be charged with the positive duty of water conservation (see p. 292).

In Northern Ireland the Ministry of Agriculture is the drainage authority in respect of determined main watercourses, with the exception of the Erne and Lower Bann which are the responsibility of the Ministry of Finance. The cost is met by the Exchequer in the first place, offset by contributions from the county and county borough councils. Joint land improvement schemes on smaller watercourses may be promoted by the riparian owners and receive Government assistance. Urban drainage schemes, towards which an Exchequer grant is available, can be promoted by local sanitary authorities.

Land Tenure

In Great Britain about half, and in Northern Ireland all farms are owner-occupied. The traditional form of tenancy in England and Wales runs from year to year; in Scotland leases for terms of 10 to 14 years are more common. The tenancy agreement may be either written or verbal and may (but need not) include provisions about such matters as rights of cropping, liability for repair and maintenance, and compensation for tenant's improvements.

In order to protect the respective interests of landlords and tenants and to eliminate uncertainty as to their rights and liabilities, a code of landlord and tenant relationships has been written into legislation. The Agriculture Acts of 1947 and, for Scotland, 1948, lay down the basic rules of good estate management and good husbandry for owners and occupiers respectively. The Agricultural Holdings Acts of 1948 and 1949 contain more detailed provisions, some of which apply to all tenancy agreements (i.e. the parties may not contract out of them) and some of which apply only in the absence of specific provision in the tenancy agreement.

Among the compulsory provisions are those relating to security of tenure. The Acts provide for any tenancy of agricultural land, with the exception of certain short-term lettings to which exemption can be given by the Minister or Secretary of State, to continue in force from year to year until determined by a valid notice to quit. With certain exceptions, such as where the notice to quit is given on account of a breach of contract by the tenant (for instance, failure to pay rent or carry out repairs), the tenant can contest it by serving a counter-notice; the notice to quit then becomes inoperative unless the landlord can satisfy an independent body (in England and Wales the Agricultural Land Tribunal and in Scotland the Scottish Land Court) that his claim for possession is in the interests of sound estate management or good husbandry or that the land is required for certain purposes specified in the Acts.

The Acts lay down a code of compensation to which the tenant is entitled on termination of the tenancy. Compensation is normally payable both for disturbance (between one and two years' rent) and for improvements which the tenant has carried out during the tenancy. The landlord is normally entitled to counter-claim for dilapidations, and machinery is provided for the settlement of claims by arbitration in default of agreement between the parties. Rent is a matter for negotiation between landlord and tenant and may be varied by agreement at any time or, failing agreement, by arbitration at intervals of not less than three years in England and Wales and five years in Scotland. A landlord is entitled to claim additional rent for improvements carried out at his expense. The Acts also forbid provisions in tenancy agreements which would unduly restrict the tenant's farming operations.

MARKETING

Agricultural products are now marketed mainly through private trade channels such as corn merchants, livestock auctions and markets, and bacon factories; or

through producers' co-operative organisations. For certain commodities, however, marketing arrangements are effected by boards operating under the Agricultural Marketing Act, 1958 (which consolidated earlier legislation). These marketing boards are producers' organisations with statutory powers to regulate the marketing of particular products. The schemes under which they are constituted and operate must be approved by Parliament and confirmed by a poll of the producers. Most of the members of the board are elected by the producers but a minority are appointed by the minister or ministers concerned. Other safeguards are provided for the protection of consumers and the public interest.

Marketing boards fall into two broad categories: first, those which have powers to trade as the first selling agency for all producers not specially exempted or, alternatively, to exercise a comparable influence by controlling all contracts between producers and first buyers; and secondly, boards which maintain only a broad control over marketing conditions leaving producers free otherwise to deal individually with buyers. The boards for eggs, hops, milk and wool fall into the first category and those for potatoes and tomatoes and cucumbers into the second.

A Horticultural Marketing Council representing all those concerned in the marketing of horticultural produce—producers, wholesalers and importers, retailers and organised labour—was set up in May 1960 under the Horticulture Act, 1960. The task of the council is to improve the marketing and distribution of, and develop the trade in, horticultural produce. Its functions include giving information about supply, demand and prices; encouraging better grading and standardisation; and carrying out research into marketing and distribution methods. It is intended that the council's activities should eventually be financed by the horticultural industry; the Horticulture Act, however, authorises the financing of the council from public funds during its first three years of operation. A Covent Garden Market Act, authorising the setting up of a Covent Garden Market Authority, was passed in 1961. The authority has powers to reorganise and modernise the largest of London's five horticultural wholesale markets.

Under a new scheme announced at the 1962 annual review, the Government is to provide grants up to a total of £1½ million over an experimental period of three years for research and development in the marketing of agricultural and horticultural produce in the United Kingdom; the industry will have to make available a similar sum from its own resources.

CONTROL OF DISEASES AND PESTS

Animals

The day-to-day work of treating animal disease is the responsibility of the veterinary profession. The State veterinary service, which was inaugurated in 1865, deals with situations beyond the control of the individual practitioner. The service for the whole of Great Britain is now controlled from London, where the Ministry's Animal Health Division is manned day and night to deal promptly with outbreaks of infectious disease.

Britain has now been free for many years from eight serious animal diseases including rinderpest, sheep scab, glanders and rabies.¹ Northern Ireland, in addition, is free from fowl pest and swine fever. On 1st October, 1960, the whole of Great Britain became an attested area, virtually free from bovine tuberculosis and Northern Ireland became so in November 1960. Thus in a space of ten years bovine tuberculosis in the United Kingdom had been reduced to a point where it was no longer a national

¹ For quarantine regulations for animals entering the United Kingdom, see Appendix.

problem. Any cattle reacting to the tuberculin test are slaughtered and compensation is paid to the owner. Strict movement and isolation controls are applied to all imported cattle not of fully attested status.

To supplement the work of private veterinary surgeons and practitioners in England and Wales, a Government-operated Veterinary Investigation Service carries out investigations requiring specialised knowledge or facilities beyond the range of the general practitioner. In Scotland this is not a Government service but is linked with agricultural teaching institutions.

The work of the State veterinary service is backed by applied research carried on at the State veterinary laboratories at Weybridge, Surrey, and Lasswade, Midlothian, and at Stormont, in Northern Ireland.

Plants

Advice to growers on the general control of plant pests and diseases is given by the advisory services. In addition, the State plant health service is responsible for statutory controls designed to limit the spread of plant pests and diseases present in Britain and prevent the introduction of new ones from abroad. It also issues the health certificates required by other countries to accompany plant material imported from Britain.

Voluntary certification schemes are operated to encourage the development of healthy, vigorous and true-to-type planting stocks, particularly of crops subject to degenerative diseases.

AGRICULTURAL ADVISORY SERVICES

The National Agricultural Advisory Service

In England and Wales free technical advice on all agricultural and horticultural matters is available to every farmer and grower through the Ministry of Agriculture, Fisheries and Food's National Agricultural Advisory Service (NAAS). Every county has a county advisory officer in charge of advisory work and is divided into districts, in each of which there is a district advisory officer who can call on an extensive system of specialist advisers. Northern Ireland has its own separate advisory service, organised on similar lines through the County Agricultural Executive officers. In Scotland the advisory services, similar in scope to the NAAS, are based on the three agricultural colleges.

Facilities are provided at the NAAS experimental farms and horticultural stations in England and Wales and at agricultural college centres in Scotland for field-scale extensions of research work and investigations of local problems.

The Agricultural Land Service

The main functions of the Agricultural Land Service, which operates in England and Wales, are:

- (1) to advise owners of agricultural land on estate management matters, including farm buildings;
- (2) to provide professional advice and services to the Minister of Agriculture, Fisheries and Food and his agents on all matters relating to farm land and buildings;
- (3) to provide expert professional advice to the Minister and department on the agricultural land use implications of planning proposals, including the possibilities of reclaiming to agriculture, land worked for minerals by opencast methods; and

(4) liaison with other departments and planning authorities about such proposals.

In Scotland similar duties are carried out by officers of the Department of Agriculture and Fisheries but advisory work regarding farm buildings is undertaken by the agricultural colleges.

The work of the advisory and veterinary services is supplemented by numerous technical publications.

RESEARCH AND EDUCATION

Research

Agricultural research in Britain is planned and co-ordinated by the Agricultural Research Council (see p. 213) and is largely financed by the State. The council has 24 research stations and units under its direct control and is responsible for the administration of Government grants to 14 independent research institutes in England and Wales; in Scotland, eight independent research organisations receive grants through the Department of Agriculture and Fisheries for Scotland. The Ministry of Agriculture, Fisheries and Food and the Department of Agriculture and Fisheries for Scotland also have their own investigation laboratories (see p. 218). Grants are also made by the Agricultural Research Council (ARC) to universities and to other recognised research institutions.

The Rothamsted Experimental Station at Harpenden, Hertfordshire, founded in 1843, was the first such institute in the world and is still a leading authority for research on soils, fertilisers and crop husbandry. Others of outstanding importance include the Macaulay Institute for Soil Research, Aberdeen; the Rowett Research Institute, Aberdeen, which specialises in the study of animal nutrition; the Research Institute at Pirbright, Surrey, for animal virus diseases; the East Malling Research Station, in Kent, and the Long Ashton Research Station, Bristol University, for fruit research; the John Innes Horticultural Institution, Bayfordbury, Hertfordshire; the National Institute for Research in Dairying, Reading, Berkshire; the Grassland Research Institute, Hurley, Berkshire; and the Welsh Plant Breeding Station at Aberystwyth. Research on stored products pests is done at the Pest Infestation Laboratory, Slough, and the subsequent development and control work at the Ministry's laboratory at Tolworth, where research on the control of harmful mammals and birds is also centred.

Information on research is exchanged with other Commonwealth countries through the machinery of the Commonwealth Agricultural Bureaux and Institutes (ten Bureaux and two Institutes in the United Kingdom and one Institute in Trinidad).

In England and Wales, research and advice on farm economics are combined in the Provincial Agricultural Economics Service, which comprises ten university Departments of Agricultural Economics and which is co-ordinated not by the ARC but by the Ministry of Agriculture, Fisheries and Food. In Scotland, agricultural economists are on the staff of the three agricultural colleges. The agricultural departments in both England and Wales and Scotland have economics and statistics units.

The Northern Ireland Ministry of Agriculture also has a Farm Economics and Statistics Division and has, in addition, its own research divisions investigating problems of animal and crop production. The staff of these divisions are also responsible for lectures in the Faculty of Agriculture of Queen's University, Belfast.

Industrial concerns manufacturing weed-killers, insecticides, fertilisers, feeding-stuffs and agricultural tractors and implements undertake research on a considerable scale and in most cases maintain experimental farms and estates. They have been responsible for developing a wide range of new, improved and safer products.

Agricultural Education

There are four types of institutions which provide full-time training in agricultural subjects: universities, agricultural colleges, county farm institutes (in England and Wales), and farm schools (in Scotland). Eight universities in England and Wales (Cambridge, Durham, Leeds, London, Nottingham, Oxford, Reading, and the University of Wales at Aberystwyth and Bangor), and three in Scotland (Edinburgh, Glasgow, and Aberdeen) provide degree and postgraduate courses in agriculture. The University of Bristol offers postgraduate diploma courses. In Northern Ireland, a degree course is provided at Queen's University, Belfast. A National College of Agricultural Engineering was established in 1960 and, pending completion of new buildings at Silsoe, Bedfordshire, started courses in the autumn of 1962 at Boreham, Essex. This will be the eighth of the national colleges (see p. 174) established to train people for highly specialised industries whose needs cannot be met at local technical colleges.

Two-year diploma courses are given at five agricultural colleges and at two of the county farm institutes in England and Wales; three agricultural colleges in Scotland give two-year to three-year diploma courses. In Scotland the three colleges also offer two- or three-term certificate courses. In Northern Ireland there are two agricultural colleges, which provide three-year diploma courses in poultry husbandry and dairying and one-year certificate courses in these subjects and in general agriculture and horticulture; a third college is to be built.

There are 31 county farm institutes in England and five in Wales run by local education authorities. They provide residential courses in general agriculture, dairying, horticulture, poultry husbandry and rural domestic economy. Local education authorities also provide a wide range of short courses and classes for farmers, farm workers, horticulturists and domestic producers.

There are seven farm schools in Scotland, run by local education authorities, providing courses—mainly residential—of from one to three years' duration for boys and girls of from 12 to 16 years. There is one residential agricultural school in Northern Ireland, which provides short courses for boys and girls over 15 years of age.

Courses in land management are available at the Universities of Cambridge and London and at the Royal Agricultural College, Cirencester.

FISHERIES

Although the sea fishing industry contributes only about $\frac{1}{4}$ per cent of the United Kingdom's gross national product, it is of greater importance to the economy of Scotland. It is also by far the most important source of employment in some of the major fishing ports. The industry falls into two main divisions, concerned respectively with white fish and herring. White fish, such as cod, haddock, plaice, turbot and sole, are demersal fish which live on or near the sea bed. Herring and similar species, such as pilchard, mackerel and sprats, are pelagic fish which live mainly in intermediate waters or near the surface.

The white fish section of the industry is made up of three main groups: the distant water, the near and middle water, and the inshore fisheries. The distant waters are those off Iceland, Greenland, Bear Island and the north coast of Norway, and the Barents Sea; the middle water grounds lie around the Faroe Islands; and the near water grounds are those in the North Sea, the Irish Sea and in the coastal areas around Britain. The herring fishing grounds are mainly within 60 miles of land. The inshore waters also yield considerable quantities of shellfish.

Fishing Ports

The principal fishing ports in England and Wales are Hull, Grimsby, Fleetwood, Milford Haven and Lowestoft for white fish, and Great Yarmouth and Lowestoft for herring. In Scotland the chief centres for white fish are Aberdeen, Granton, Fraserburgh, the Moray Firth, Shetland, and the west coast; herring landings are made principally at Aberdeen, Fraserburgh, Peterhead, Shetland, and at a number of west coast ports, including Ullapool, Mallaig, Oban and Ayr. In Northern Ireland the herring fishing ports are Ardglass, Portavogie and Kilkeel.

Methods of Sea Fishing

The chief methods of catching fish are by trawling, seining, lining, and ring and drift netting.

Trawling is carried out throughout the year in the distant and near waters for all species of demersal fish.

Seining is also used for catching demersal fish all the year round; a number of fishermen in England, Scotland and Northern Ireland depend on seining for a living, the main areas of operation being in the North Sea, the Minches, the Firth of Clyde, and the Irish Sea. There are about 780 Scottish and Northern Ireland seiners, and about 215 operating from English ports.

The pelagic fisheries are seasonal. There is summer fishing for herring based on the Shetlands, the east coast ports of Scotland, and the north-east coast ports of England, and autumn fishing off East Anglia based on Lowestoft and Yarmouth. Other seasonal fisheries take place off the west coast of Scotland and off Southern Ireland.

The inshore fisheries comprise a great diversity of types of vessels and methods of capture; trawling, seining, lining, and drift and ring net fishing are employed; in addition, there are extensive fisheries for crabs, lobsters, shrimps, mussels, cockles and oysters, and, off Scotland, north-east England and in the Irish Sea, there are substantial catches of 'Norway lobsters' (nephrops).

The Fishing Fleet

Distant water vessels, which operate mainly from Hull, Grimsby and Fleetwood, numbered 288 at the end of 1961. They are over 140 feet and up to 220 feet in length and make voyages of 17 to 23 days to fishing grounds in the Arctic Circle, although in the past few years there has been an increasing tendency to fish the waters bordering Newfoundland, Labrador and Greenland. The increase in fishing in these areas is due in part to the introduction of factory trawlers of up to about 260 feet in length which spend up to three months at sea and fillet and freeze much of their catch immediately it is taken. At the same date, near and middle water vessels numbered 461; they are under 140 feet long and most of them work nearer home, making voyages of from a few days up to more than two weeks, although some of the larger vessels fish regularly off the Faroes and seasonally as far afield as Iceland. Included in the near water group are vessels engaged in drift net fishing for herring; these vessels usually make daily voyages. The inshore group consists mainly of vessels of under 80 feet which are seldom at sea for longer than two or three days and more usually make daily landings, often fishing within sight of land.

In the United Kingdom fishing industry in 1961 there were about 22,000 fishermen in regular employment and some 6,000 were occasionally employed; 9,000 of the former and 2,200 of the latter were from Scottish ports. In Northern Ireland there were about 500 regular fishermen.

Supplies

In the year which ended on 31st December, 1961, landings of fish, both demersal and pelagic, in the United Kingdom by British fishing vessels totalled 746,000 tons (644,000 tons of demersal fish and 102,000 tons of pelagic), valued at about £49 million. Landings at British ports by foreign vessels totalled about 149,000 tons of fresh and frozen fish (including 65,000 tons brought direct from the fishing grounds), valued at about £14 million. British landings of shellfish yielded £2.4 million. Cod accounted for 40 per cent of the total value of wet fish (i.e. fish other than shellfish) landed by British vessels; haddock (20 per cent) and plaice (9.6 per cent) were the other most important sources of earnings to the industry.

Net imports of all types of fish (fresh, frozen, salted or canned) into the United Kingdom in 1961 amounted to about 201,000 tons valued at £43 million, including 23,000 tons of canned salmon to the value of £15 million and other canned fish worth £7.7 million.

Weekly consumption of fresh, frozen and cured fish (excluding shellfish and imported canned fish) in the United Kingdom averaged 15,500 tons landed weight in 1961. On an edible (fillet) weight basis, United Kingdom consumption has been estimated provisionally at 17.6 pounds per head in 1961, compared with a peak total of 28.7 pounds in 1948 and an annual average of 21.8 pounds from 1934-38.

Two-thirds of the catch landed in Northern Ireland is used for human consumption or for animal feeding; the balance is exported to Great Britain.

Sea Fish Processing

Processing and packaging of fish—curing, kippering, canning and quick-freezing for consumer packs—are the subject of continuing research and development. The production of quick-frozen fish has been increasing steadily since 1952. With the increase in quick-freezing, new export outlets have opened up for white fish, which in 1961 accounted for nearly half the total British exports of fish and fish products, valued at £6.4 million. Markets abroad for quick-frozen fish, mainly in Europe and the Commonwealth, have been expanding steadily; exports of herrings have continued to decline.

By-products

A valuable by-product of the industry is the manufacture of fish meal for animal food and to a much lesser extent for fertilisers. Home production of white fish meal and herring meal has over the past three years remained constant at around 75,000 tons per annum. A large percentage of the fish meal is obtained from offal and most of the remainder from unsold catches. Imports of fish meal of all kinds in 1961 totalled 230,000 tons. The preparation of vitamin oils from fish livers is also a source of additional earnings. The oil is extracted at sea as soon as the fish are caught, and is later refined ashore.

Freshwater Fisheries

The main commercial freshwater catches are salmon, sea-trout and eels. In Scotland and Northern Ireland, fixed nets along the coast and sweep or draught nets in rivers and estuaries are used; in England, drift nets are used for catching salmon in the sea, and draught nets and fixed traps in estuaries. In England and Wales the value of the salmon catch is approximately £300,000 a year, in Scotland it amounts to over £1 million, and in Northern Ireland to some £150,000. In Northern Ireland, eels,

worth about £160,000 a year, are captured by long lines and by eel nets placed in river weirs.

Fishing for sport by rod and line in rivers, lakes, streams and canals is widespread. Salmon grilse and sea-trout are the most important catches, and the fishing rights command high rentals. There are also extensive fishings for brown trout and other freshwater fish, e.g., roach, rudd, perch and dace; figures of catches are not available.

Distribution System

The principal inland wholesale distributing centre for fish is Billingsgate Market in London, which handles about 300 tons a day, but other large cities also have central fish markets. The principal method of distribution is through wholesalers, located at the ports, who buy at the auctions and sell to inland wholesalers; the port wholesalers prepare the fish for onward shipment. Many special express fish trains transport the catch daily from the ports to inland centres, but increasing use is being made of road transport. Retail sales are handled by some 25,000 to 30,000 fishmongers and fish friers; the latter use about a third of the landings of white fish.

Recent developments include the entry of trawler-owning companies into the system of distribution. This process is being speeded by two factors: one is the growing popularity of quick-frozen consumer packs, which are sold by other retail outlets as well as by fishmongers (between 15 and 20 per cent of fish sold in 1961 was estimated to be quick-frozen); the other is the decline in the number of fried fish shops.

Promotion and Regulation of the Industry

The Government departments mainly responsible for the administration of legislation concerning the fishing industry are the Ministry of Agriculture, Fisheries and Food, the Department of Agriculture and Fisheries for Scotland and the Ministry of Commerce for Northern Ireland; the Ministry of Health and the Scottish Home and Health Department are concerned with questions of nutrition and hygiene affecting fish and fish products. The safety and welfare of crews of fishing vessels are provided for under the Merchant Shipping Acts, which are administered by the Ministry of Transport.

The Herring Industry Board. The Herring Industry Board was set up under the Herring Industry Act of 1935 to reorganise, develop and regulate the herring industry; subsequent amending Acts have also been passed. The board consists of a chairman and two other members, all part-time and independent of the industry, who are appointed jointly by the Minister of Agriculture, Fisheries and Food, the Secretary of State for Scotland and the Home Secretary. The board, whose activities are financed partly by Government grants and loans and partly by levies and licence fees, is advised by the Herring Industry Advisory Council, consisting of representatives of the catching and shore sections of the industry.

The functions of the board include the promotion of sales of herring, both at home and abroad, and the provision of financial assistance for the purchase of new boats, nets and gear, and the reconditioning of existing boats. The board is particularly active in developing new and wider markets for herring, and applying the benefits of technical progress to the industry, including the adoption of new fishing methods, and the construction of new processing plants for quick-freezing and kippering. The board buys all herring not sold for other purposes for reduction to oil and meal, and, with the aid of Government grants, has built processing factories for this purpose.

The White Fish Authority. The White Fish Authority and the Committee for Scotland and Northern Ireland of the Authority were set up under the Sea Fish Industry Act, 1951. The function of the authority is to reorganise, develop and regulate the white fish industry, and that of the Committee to advise the authority about the exercise and performance of its functions in Scotland and Northern Ireland. The authority is composed of five independent members, and the Scottish Committee of four under the chairmanship of a member of the authority. They are appointed jointly by the Minister of Agriculture, Fisheries and Food, the Secretary of State for Scotland and the Home Secretary. The White Fish Industry Advisory Council was also set up under the Sea Fish Industry Act, 1951, to advise the authority about the exercise and performance of its functions. It consists of 51 members representing the various interests of the fishing industry.

The White Fish Authority administers Government grant and loan schemes for the purchase of new fishing vessels and engines and loans for the purchase of nets and gear and processing plants. Up to 31st March, 1962, £30.5 million in loans and £12 million in grants were approved for these purposes by the authority. Its other activities are financed by a levy on first-hand sales of fish.

Subsidies and Grants

Since 1950 a Government subsidy has been paid towards inshore, near and middle water vessels fishing for white fish. This subsidy, now paid under the White Fish and Herring Industries Act, 1953, varies according to the class of vessel concerned and is paid at the rate of so much per day at sea for the larger vessels and at so much per stone of fish landed from the smaller boats. In 1961-62 the amount paid in this way was £3.1 million. The White Fish and Herring Industries Act, 1957, extended the subsidy to vessels fishing for herring, the conditions being broadly the same as for white fish vessels. In 1961-62 herring subsidy totalled £364,273. Grants and loans are also available under these Acts for vessels and engines for the fishing fleets.

The Sea Fish Industry Act, 1959, which came into operation in December 1959, provided for further funds for subsidies and grants, and the White Fish and Herring Industries Act, 1961, extended the white fish subsidy to vessels over 140 feet in length and to other vessels fishing distant waters.

The Sea Fish Industry Act, 1962, passed in consequence of the report of a Committee of Inquiry into the Fishing Industry, extended the scope of these forms of aid and made provision for their continuance until the end of 1972. The Act, however, contained special provisions for annual reductions in the rates of white fish subsidy payable to vessels of 80 feet or over in length.

Whaling

Whaling is mainly conducted by expeditions, each consisting of a large floating factory ship accompanied by its attendant whale catchers and tankers, which operate mainly in the Antarctic Ocean. It is regulated by the International Whaling Commission, set up under the International Whaling Convention of 1946, which controls the dates of the season and has powers to set a limit on the Antarctic catch of whales. The offices of the commission are in London.

In recent years the United Kingdom industry has been declining in size, and now sends only one expedition to the Antarctic each year. Whaling is also undertaken from land stations on South Georgia, a British island in the South Atlantic. The volume of whale oil obtained by the British pelagic expeditions in the 1961-62 season amounted to about 164,000 barrels.

FORESTRY

The total woodland area of Great Britain is more than 4 million acres, or over 7 per cent of the total land area. Except for the period of the two world wars, when much over-felling took place, home woodlands have not made more than a small contribution to the nation's timber requirements. At present, Great Britain imports about 85 per cent of its needs of timber and wood products. The Government is, however, devoting continuous effort through the Forestry Commission to the long-term task of increasing the country's timber resources.

Forest Areas

On 30th September, 1961, the area of woodland in blocks of one acre and over in extent was estimated to be 4,164,000 acres, of which about half were in England, about two-fifths in Scotland and the rest in Wales. The greatest density of woodland in Great Britain occurs in north, east and central Scotland and in the southern counties of England, although afforestation is now increasing the importance of forestry in many counties which were not previously heavily wooded. The classification of forest area showing type and ownership in 1961 is given in Table 22.

TABLE 22
CLASSIFICATION OF FOREST AREA IN GREAT BRITAIN 1961

Thousands of acres

Forest Type	Forestry Commission woodlands	Private woodlands (a)	Total	Percentage of total forest area
Mainly coniferous high forest ..	1,207	655	1,862	45
Mainly broadleaved high forest ..	137	756	893	21
Coppice and coppice with standards	28	296	324	8
Unproductive woodlands ..	86	999	1,085	26
TOTALS	1,458	2,706	4,164	100
Percentage of total forest area ..	35	65	100	

Source: Forestry Commission.

(a) Forest owned by private individuals and bodies; in this classification a small area of communal forest is included, i.e. forest owned by public bodies such as local authorities and water supply undertakings.

The high proportion (over one-quarter) of unproductive woodland (scrub and areas where trees have been felled and partially felled) is largely a legacy of two wars, when many woods were felled to meet the need for timber. Since 1945 the area of this unproductive category has been reduced by about 250,000 acres, but the large area which remains gives some indication of the problem of rehabilitation which still lies ahead.

The most common of the coniferous tree species in Great Britain is probably the Scots pine, but such trees as the Sitka and Norway spruce are also plentiful. Of the

broadleaved species, the most common tree is the oak, and there are considerable numbers of beech, ash, birch, sycamore and elm. The climate and soil of Great Britain are such that the growth of timber which can be obtained under systematic management compares most favourably with that achieved in other European countries.

Increased Use of Timber

From the early Middle Ages there was a continuous process of deforestation in Great Britain. Woodlands were cleared for agriculture, and timber was used for a variety of domestic and industrial purposes, for instance, as charcoal in iron-smelting, for fuel, housebuilding, domestic and agricultural equipment, and shipbuilding. Following the Industrial Revolution, cheap and easily workable timber began to be required in ever-increasing amounts for a variety of new industrial needs, which could only be met from imported supplies, and by 1914 home woodlands provided only 7 per cent of requirements. The sudden demands of the first world war brought about a realisation of the need for a national forest policy.

The Forestry Commission and Forestry Policy

In 1919 the Forestry Act was passed establishing the Forestry Commission as the national forest authority, with the general duty of promoting the interests of forestry, the development of afforestation and the production and supply of timber in Great Britain. The commission consists of a chairman and not more than nine commissioners who are appointed by the Crown; in exercising their functions, they are required to comply with such directions as may be given to them by the Minister of Agriculture, Fisheries and Food and the Secretary of State for Scotland. There is continual contact between the commission's staff and private owners of woodland, and the staff gives advice, free of charge, on silvicultural and management problems; substantial grants for planting and forest management are paid to woodland owners.

In the years before the second world war, some progress was made by the commission in increasing the area under forest. During the war, however, extensive felling was necessary to replace imports of timber. In 1943 the Forestry Commissioners recommended, in their report on post-war forestry policy, that the nation should aim at having at least 5 million acres of productive forest, of which 2 million acres, mostly in private ownership, would accrue from the rehabilitation of existing woodlands and 3 million acres from the afforestation of bare land by the Forestry Commission. The acreage of woodland proposed would, it was estimated, produce ultimately a volume of timber equivalent to about one-third of the country's needs. On this basis, forestry would become a major industry which, in addition to its economic value, would help to arrest the depopulation of rural areas.

In 1958, after reviewing forestry policy, the Government decided that the planting programme of the Forestry Commission for the five-year period 1959 to 1963 should be about 300,000 acres and for the period 1964 to 1968, by which time the Forestry Commission's existing plantations would begin to come into full production, about 235,000 acres.

The Commission owns over 500 forests, totalling 1,700,000 acres of forest land, well distributed over England, Scotland and Wales. All these forests are covered by management plans, which provide for such work as planting, road construction, thinning and fire protection.

Nearly half of the Forestry Commission's new planting is being carried out in Scotland, about a quarter of it in the Highland counties. The poorer types of land are being used, such as sour, peaty soil which is unsuitable for other agricultural

purposes, and has become suitable for forestry only as a result of recent advances in deep ploughing. Sand dunes are also used; on the southern shore of the Moray Firth, Culbin Forest now covers 7,700 acres of land which had been unproductive for centuries. Similarly, in Wales, 1,900 acres of sand dunes at Môn, Anglesey, and nearly 2,400 acres at Pembrey, Carmarthenshire, are being successfully planted.

Finance. The Forestry Fund was established by the Forestry Act, 1919; from it is paid all the expenditure of the Forestry Commissioners and into it are paid their receipts from sales of produce, rentals and other sources, together with the amounts voted annually by Parliament. From 1920 to 1961, net grants from Parliament totalled £130.7 million and receipts from other sources £41.9 million. Expenditure during these years totalled £172.4 million. In the year ended 30th September, 1961, expenditure amounted to £15.6 million, of which nearly £1.2 million represented various grants to private forestry.

Private Forestry

Privately owned woods in 1961 comprised about two-thirds of the total forest area in Great Britain (as shown in Table 22), and contain most of the mature and semi-mature timber. The size of woodlands in individual ownership ranges from a few acres to several thousand acres, and a high proportion of the privately owned woodland area belongs to small owners (i.e. owners of woods of up to about 250 acres).

Impetus has been given to the effective management of private woodlands by the introduction of the Dedication of Woodlands Scheme under the Forestry Act, 1947. Under this scheme, owners are invited to put their land permanently to timber production and to manage their woods in accordance with a plan agreed with the Forestry Commission, in return for the provision of planting and management grants and technical assistance. By September 1961 the total area dedicated was 682,000 acres. In addition, there are the woodlands covered by the Approved Woodlands Scheme in which a planting grant, but no management grant is made; and these bring the total area managed under an agreed plan to over 832,000 acres. Woodland owners are represented, in their relations with the Forestry Commission, by the Forestry Committee of Great Britain, which co-ordinates the work of two associations of woodland owners, the Timber Growers' Organisation (for owners in England and Wales) and the Scottish Woodland Owners' Association.

The Forestry Commissioners have encouraged the development of co-operative forestry schemes and have made loans available. The co-operative societies provide for landowners and farmers the services of skilled staff, centralised purchasing facilities, and a central agency for the disposal of forest produce. The commission also co-operates with the principal forestry societies, such as the Royal Forestry Society of England and Wales and the Royal Scottish Forestry Society, in disseminating technical knowledge.

In 1959 the Home Grown Timber Marketing Corporation was established by the timber merchants to promote the use of home grown timber.

Consultative Machinery

The Forestry Act, 1945, established national committees for England, Scotland and Wales, composed partly of forestry commissioners and partly of persons outside the commission. These committees supervise certain aspects of the commission's work, including particularly the acquisition and management of land and the promotion of private forestry.

Other bodies have been set up to provide for consultation on the marketing and utilisation of home grown timber. The Home Grown Timber Advisory Committee, established by the Forestry Commissioners in 1939, consists of representatives of the Forestry Commission, the Board of Trade and associations of landowners and timber merchants. In 1949 the Forestry Commissioners set up the Advisory Committee on Utilisation of Home Grown Timber to advise landowners and to undertake research into problems connected with the marketing of timber from the commission's own forests. A voluntary scheme was agreed upon in 1961 for consultation on proposals for afforestation of land within National Parks (see p. 186) that has not previously been planted with trees. The Forestry Commission agreed, and the Timber Growers' Organisation and the Country Landowners' Association undertook to advise their members, to submit such proposals to the park planning authorities.

Forestry Education and Research

The Forestry Commission maintains four forester training schools: in England, at Parkend in the Forest of Dean, Gloucestershire; in Wales, near Bettws-y-Coed in Caernarvonshire; and in Scotland at Benmore, Argyllshire, and Faskally, near Pitlochry in Perthshire. Notherwood House in the New Forest, Hampshire, is the commission's educational centre, and is used for practical courses for university students, landowners and agents, planning officers, school teachers and others connected with, or interested in, forestry.

Higher education in forestry is provided at several universities; a proportion of suitable graduates is recruited by the commission as forest officers.

The Commission's Forest Research Station at Alice Holt Lodge, near Farnham, Surrey, was opened in 1946. Expenditure on research work at this station and in experimental areas in many forests in Great Britain amounted to £427,000 in 1961. This sum included grants for special forestry research work to various institutions and to university departments including the Imperial Forestry Institute at Oxford, which is also financed by the University, the Colonial Office, and Colonial Governments. Research into the qualities of home-grown timber is carried out by the Forest Products Research Laboratory at Princes Risborough, Bucks, which is one of the establishments of the Department of Scientific and Industrial Research, and also by grant-aided research associations.

Forestry in Northern Ireland

When the Government of Northern Ireland was formed in 1922, the new Ministry of Agriculture became the forest authority working with similar powers and duties to those conferred on the Forestry Commission by the Forestry Act, 1919. At that time the Ministry took over some 4,000 acres for afforestation, of which 700 acres had been planted.

Forest policy in Northern Ireland is now implemented by the Forestry Act (Northern Ireland), 1953, which replaced earlier legislation. This Act provides the Ministry with powers to acquire and manage land, and to give financial and technical assistance for private planting. It introduced measures for the protection of all woodlands, whether owned by the State or privately owned, against destruction by over-cutting, fire or depredation by animals.

The State forest area has grown steadily and at a greatly accelerated pace since the end of the second world war. By 1962 over 115,000 acres had been acquired, of which nearly 63,000 acres had been planted. The present afforestation programme provides for the creation, as soon as possible, of an area of 150,000 acres of productive

State forest. To reach this objective, a minimum annual planting rate of 5,000 acres has been set.

Financial provision is made by sums voted annually by Parliament and receipts from forest produce, rentals and other sources. From 1922 to 1962 expenditure amounted to about £9 million, and receipts, other than parliamentary grants, were in the region of £3.05 million. About 1,400 people are employed in field labour and ancillary work. The area of exploitable private woodlands is at present about 27,000 acres, and private planting, which is gaining impetus, is assisted by schemes for the supply at a low cost of young trees from the Ministry's nurseries, by grants towards the cost of the establishment of new plantations, and by free technical advice.

In October 1961 the Ministry opened Pomeroy Forestry School at Pomeroy House, Co. Tyrone, which provides training and refresher courses for forestry workers, school teachers and others interested in trees and forestry.

TRANSPORT AND COMMUNICATIONS

Inland and overseas transport and communications employed about 7.3 per cent of the total labour force in the United Kingdom at the end of 1961. Of the 1,688,200 persons so occupied, 28 per cent were engaged in road passenger transport and road haulage contracting, 27 per cent in railways and 19 per cent in postal services and telecommunications. Sea and air transport absorbed respectively 10 per cent and something less than 3 per cent. Nine per cent were occupied in port and inland water transport, and 4 per cent in miscellaneous transport services and storage. Transport and communications contribute nearly 8 per cent to the gross national product and 14 per cent to gross fixed capital formation at current prices.

SHIPPING

About 18 per cent of the world's sea-going tonnage of 100 gross tons¹ and over is registered in the United Kingdom. Although the British merchant fleet is still the largest in active employment, British shipowners have been subject to increasing competition from the growing fleets of other nations. Between 1955 and 1961 the British merchant fleet increased by 11 per cent while the total tonnage of all other countries increased by 41 per cent, from 81 million to 114 million gross tons. The balance of payments for shipping services has been positive until recently (it was minus £50 million in 1961) and shipping still makes one of the largest contributions to the United Kingdom's total earnings of foreign exchange. In 1961 freights, charter receipts and passage money amounted to £582 million, or 25 per cent of the total value of invisible exports. In recent years freight carried in cross-trade has amounted to nearly two-thirds of total shipping earnings. The proportion of the United Kingdom's own sea-borne trade carried in British ships is not known exactly, but is believed to amount to about half.

THE MERCHANT FLEET

A total of 21.5 million gross tons of merchant shipping (steam and motor vessels of 100 gross tons and over) was registered in the United Kingdom on 30th June, 1961, the largest tonnage ever recorded.

Recent trends in the composition of the merchant fleet have been the reduction of tramp tonnage other than specially built bulk carrier tonnage, the growth of tanker tonnage, the increasing size of tankers, and the commissioning of vessels specially

¹ One gross ton (g.t.) = 100 cubic feet. One deadweight ton (d.w.t.) = 1 long ton (2,240 lb.). Gross tonnage indicates the total capacity of the enclosed spaces on a ship. Deadweight tonnage denotes the maximum load which a vessel can carry before sinking to the load line.

built to carry ore, sugar, and other commodities in bulk. Including Admiralty and other tankers, the United Kingdom accounts for over 7 million gross tons or 17 per cent of the world's total sea-going tanker tonnage.

Modernisation, Age and Size

From 1945 to the end of 1960 orders for new ships placed in United Kingdom yards by British owners totalled over 15.5 million gross tons, with an aggregate value of nearly £1,700 million. As a result, 55 per cent of the total gross tonnage in 1961 was less than ten years old, compared with 43 per cent in 1955. The corresponding figures for tankers were 74 per cent in 1961 and 58 per cent in 1955. There has been a tendency for replacements to be larger because big ships are more economical to run; between 1955 and 1961 the average size of all ships (over 500 gross tons) increased from 5,200 to 6,200 tons, and that of tankers (over 500 gross tons) from 8,400 to 11,100 gross tons.

In 1962 there were four liners of 30,000 gross tons and over operating on transatlantic passenger services: namely, the *Queen Elizabeth* (83,673 g.t.), the *Queen Mary* (81,237 g.t.), the *Mauretania* (35,673 g.t.), and the *Caronia* (34,173 g.t.). An extensive programme of replacement of their fleet of passenger liners is being carried out by the liner companies and the two largest liners to be built in Britain since 1939, the *Oriana* (42,000 g.t.) and the *Canberra* (45,000 g.t.), came into service in 1960 and 1961 respectively on the services from Britain to Australia and across the Pacific to North America. The most notable passenger liner launched in the United Kingdom in 1961 was the *Transvaal Castle* (33,000 g.t.), which will be used on the South African mail service. During that year three tankers, each of some 65,000 d.w.t., the *Serenia*, the *Sepia* and the *Solen*, were completed for service with the Royal Dutch Shell group. In June 1961, 14 tankers of 40,000 d.w.t. and over were owned and registered in the United Kingdom.

Propulsion

The amount of coal-fired tonnage was somewhat less than 400,000 gross tons in 1961 and continues to fall. Oil has taken the place of coal in steamships, while steam has continued to give place to the diesel engine, nearly 51 per cent of all tonnage being diesel-driven in 1961. The first new ocean-going cargo ship to be powered by free piston engines was launched on Clydeside in January 1959. The Ministry of Transport, with the co-operation of the shipowning, shipbuilding and marine engineering industries, is investigating the possibility of applying nuclear propulsion to merchant ships.

Employment of Shipping

In June 1961, 17.4 million gross tons of trading vessels of 100 gross tons and over were owned and registered in the United Kingdom.¹ The usual employment of this fleet has been analysed by the United Kingdom Chamber of Shipping as follows: 8.4 million gross tons were employed as ocean-going passenger and cargo liners; 2.9 million gross tons as ocean-going tramps; 5.2 million gross tons as ocean-going tankers; and 1.0 million gross tons in coasting and trade with ports between the Elbe and Brest (home trades). During 1961, 28.8 million tons of cargo were carried in tramps and liners between United Kingdom ports, compared with 33.5 million tons in 1955. In both years coal comprised nearly three-quarters of the total.

¹ The remaining tonnage included fishing vessels, tugs, river and estuary craft, Admiralty vessels (mostly tankers) not usually engaged in the commercial carriage of cargo, and shipping registered in the United Kingdom but owned in other Commonwealth countries (including over 600,000 gross tons of tankers).

SHIPOWNERS

About half of British-owned shipping registered in the United Kingdom consists of ocean-going passenger-cargo and cargo liners, mostly the latter. Practically all these ships are owned by large liner companies or groups of liner companies. Many of them operate wide networks of scheduled freight and passenger services which, between them, cover every ocean. The 2.9 million gross tons of ocean-going tramp ships are operated by a large number of private owners, some of them having only a small number of ships and some only one ship.

According to a survey published in 1959, the British shipping industry was composed of some 270 companies, about half the tonnage being owned by nine or ten main groups controlling over 50 companies. The many world-famous British shipping lines operating services on international routes include: the Cunard, to North America; the Royal Mail, to South America; the Blue Funnel, to Australia and the Far East; the Peninsular and Oriental (P. and O.)-Orient and the British India lines, to India and Australia; the Union Castle, to South Africa; Elder Dempster, to West Africa; Furness Withy, to North America and the West Indies; the New Zealand line, to North America, Australia and New Zealand; and Shaw Savill and Albion, to Australia.

Over two-thirds of the total United Kingdom tanker fleet belongs to the oil companies, although there are a few important independent United Kingdom tanker-owning companies. A new type of specialised bulk carrier—the ore-carrier—is in use on a substantial scale; some of the ore-carriers are partly owned by companies in the steel industry, but are managed and operated by shipping companies.

Since the second world war United Kingdom shipowners have received no direct financial assistance from the Government. For some years, however, the Government has recognised that the United Kingdom shipping industry is faced with severe competition and has found it increasingly difficult to build up finance for the replacement of ships. In 1956 the shipping industry was the only industry allowed to retain the 20 per cent investment allowance in respect of taxation which was withdrawn from industry generally (but restored in 1959). The allowance was raised to 40 per cent in 1957 for capital expenditure on the construction of new ships.

SHIPPING ORGANISATIONS

The main organisations concerned with the activities, interests and common problems of the industry are as follows:

The Society of Lloyd's

This body, which was founded in the late seventeenth century, is an incorporated society of underwriters whose main business is marine insurance (see p. 416).

Lloyd's Register of Shipping

Lloyd's Register is an organisation (distinct from the Society of Lloyd's) which surveys and classifies ships with particular regard to their safety and operational efficiency. It will accept responsibility for surveying and giving technical advice on vessels of all flags from the initial stages of building, at regular intervals during their service, and after casualties. A satisfactory Lloyd's classification is a guarantee to an underwriter that he may accept the risk of a vessel, and this forms a strong link between the Register and the Society of Lloyd's.

Shipowners' Organisations

The representative bodies speaking for shipowners generally (excluding, for the most part, owners of fishing vessels) are the *Chamber of Shipping* and the *Liverpool Steamship Owners' Association*. The *General Council of British Shipping* co-ordinates the views of the shipping industry as a whole on all matters of major policy.

There are a number of local associations of shipowners centred around the main port areas, for example, the *Bristol Steamship Owners' Association*, the *London General Shipowners' Society*, and the *North of England Shipowners' Association*. Others represent companies specialising in a particular trade or type of cargo.

Employers' Organisations

The *Shipping Federation* and the *Employers' Association of the Port of Liverpool* are the employers' organisations concerned with labour relations and the regulation of employment throughout the Merchant Navy. They are responsible for the administration of the Merchant Navy Established Service Scheme, under which shipowners engaging crews for ships of 200 gross tons and above engage them through the Merchant Navy Establishment Administration unless they are prepared to offer two-year Company Service contracts. The Shipping Federation is also responsible for the day-to-day operation of the National Sea Training Schools set up for the purpose of training ratings for the deck and catering departments and as firemen.

Seafarers' Organisations

Shipmasters are represented by the *Mercantile Marine Service Association*; navigating officers, engineer officers, apprentices, cadets, pursers and ships' surgeons by the *Merchant Navy and Airline Officers' Association*; and radio officers by the *Radio Officers' Union*. Some uncertificated engineer officers are represented by the *Amalgamated Engineering Union*. The interests of the deck, engine-room and catering ratings are represented by the *National Union of Seamen*.

The National Maritime Board

The National Maritime Board is composed of equal numbers of representatives of the shipowners and seafarers and is responsible for all negotiations of wages and conditions of service in the Merchant Navy, although, except by special arrangement, National Maritime Board agreements do not apply to vessels of under 200 gross tons, or to certain other ships, including tugs and salvage vessels. Detailed working of the board is carried on by a number of 'panels' representing the various interests of those forming the seafarers' part of the board.

Conferences

British shipping companies operating liners have associated with each other and with the companies of other countries operating on the same routes in a series of 'conferences' designed to secure standardisation and stability of rates, and to maintain frequency and regularity of services. The essential principle of a conference is the establishment of a common tariff of freight rates or passenger fares from each port of departure. Each conference meets from time to time to review and revise existing rates, or to compile new ones. Some of the conferences are connected by rate agreements, or have joined together to form wider groupings. There are over 60 conferences dealing with trade to and from the United Kingdom.

The Baltic Exchange

The Baltic Mercantile and Shipping Exchange, which originated in one of London's seventeenth-century coffee houses, is the world's largest market for the chartering of

ships of all nationalities. Shipbrokers and merchants' representatives meet here to arrange the chartering of ships, or space in ships, for the carriage of all kinds of goods to and from all parts of the world.

RELATIONS WITH THE GOVERNMENT

The Ministry of Transport is the Government department responsible for most matters connected with merchant shipping. Under the Merchant Shipping Act of 1894 and subsequent legislation, it administers many regulations for marine safety and welfare, for instance: certifying the load-line (or Plimsoll line) that ensures that a ship is not overloaded; ensuring that standards of safety are observed in ship construction; ensuring the provision of adequate life-saving, fire-fighting and radio equipment; and dealing with the discipline, professional standards, health and accommodation of seamen. Most of the work which these responsibilities entail is carried out by the officers of the Marine Survey and Mercantile Marine at the ports. There is also a Registrar-General of Shipping and Seamen in whose office at Cardiff a complete record of all British ships and seamen is kept. The Ministry is represented on the Merchant Navy Welfare Board and on the Merchant Navy Training Board (see p. 363). The Ministry fosters the development and use of modern navigational aids.

The Ministry of Transport is responsible for transporting by sea the men and materials of the armed forces and looks after ships that it owns or has chartered. It is concerned with general shipping policy and the strategic implications of the Merchant Navy; and it is also the sponsoring department for the shipbuilding, ship repairing and marine engineering industries.

Abroad, certain parts of the Merchant Shipping Acts, in particular those provisions dealing with the engagement and discharge of crews outside the United Kingdom, are administered by H.M. Consuls and by officers of the Commonwealth and Colonial Governments.

In August 1962 the Minister of Transport announced the setting up of a Shipping Advisory Board, under his own chairmanship, to advise him on commercial and economic matters likely to affect the well-being of the shipping industry.

The United Kingdom is a party to the 1954 International Convention for the Prevention of the Pollution of the Sea by Oil which came into force in 1958. The nations which have ratified this convention agree to prohibit their national fleets from discharging oil within 50 miles of any coast and also in extensive areas of the Atlantic Ocean and the North Sea. Amendments to the Convention were agreed at an international conference held in London in 1962, but it will be some time before the changes can become effective. British ships registered in the United Kingdom were already prohibited from discharging oil within a wide zone of the sea around the United Kingdom under the Oil in Navigable Waters Act, 1955, which is administered by the Ministry of Transport. The discharge of oil from any source into United Kingdom territorial waters and harbours was first prohibited in 1922.

Lighthouses, Pilotage and Rescue

The Ministry of Transport administers the Coastguard Service. This is primarily a life-saving organisation which keeps watch at danger points around the coast for vessels in distress and renders assistance either by rocket life-saving apparatus or by informing other authorities who may be able to give help. There is close liaison between the Coastguard Service and the Royal National Life-boat Institution. The latter maintains lifeboats around the coast of the United Kingdom; it is supported entirely

by voluntary subscriptions, and depends largely for its operation on voluntary workers. From its foundation in 1824 to the end of 1961, the Royal National Life-boat Institution rescued 83,451 people. Lifeboats were launched 960 times in 1961, and rescued 416 people.

The general lighthouse authority for England and Wales, the Channel Islands and Gibraltar is the *Corporation of Trinity House*, which received its first Royal Charter in the sixteenth century and is administered by a Board of ten Elder Brethren, elected from the Royal Navy and the Merchant Navy. Lighthouses in Scotland and Ireland are the responsibility respectively of the Commissioners of Northern Lighthouses and the Commissioners of Irish Lights.

Trinity House is also the chief pilotage authority in the United Kingdom, licensing some 650 pilots in 41 districts in England and Wales, including London. In some cases the harbour authority or local council is the pilotage authority. The Ministry of Transport also has certain responsibilities in connection with lighthouses and pilotage.

THE MERCHANT NAVY

The number of masters, officers and men serving in December 1961 in British ships on articles of agreement opened or closed in the United Kingdom was nearly 147,000. Masters and deck and engineer officers numbered about 43,500 and deck and engine-room ratings about 47,500. There were 43,000 catering personnel, nearly 6,000 apprentices and cadets and 3,500 radio officers.

Qualifications

The *Merchant Navy Training Board* promotes the instruction and studies at sea of apprentices and cadets who are preparing for their examinations for certificates of competency as second mate.

The Ministry of Transport holds examinations for, and issues certificates of competency to, ships' officers as master, first mate and second mate of foreign-going ships, or master and mate of home trade ships and as first-class engineer and second-class engineer. Officers may not normally serve on board ships in these grades unless they hold the appropriate, or a higher, certificate.

Radio officers are required to hold certificates of competency in radio telegraphy issued by the Postmaster General on the results of an open examination.

A seaman may not be rated as A.B. (Able Seaman) in United Kingdom registered ships unless he holds a certificate of competency as A.B., granted by the Ministry of Transport, or an equivalent certificate. To obtain this certificate a seaman must, among other qualifications, have served three years at sea on deck, have obtained a certificate of proficiency as lifeboatman and have passed a qualifying examination.

Seamen qualify by seniority for promotion to the rating of petty officer. Service as a deck rating qualifies for the purpose of admission to the examination for a second mate's certificate.

Conditions of Employment and Welfare

Wages and conditions of employment are negotiated by the National Maritime Board. Minimum wages and holidays with pay are guaranteed for both officers and ratings. Moreover, the Merchant Navy Established Service Scheme, introduced by the board in 1947, has removed a great deal of the uncertainty formerly associated with a seafaring life. Officers and men can now take two-year contracts, not only with individual shipping companies but with the industry as a whole, and get special

benefits, in addition to the normal unemployment insurance benefit, when they are ashore between voyages.

The *Merchant Navy Welfare Board*, on which are represented officers' and seamen's unions and associations, shipowners, voluntary societies, the Ministries of Transport, Labour, and Pensions and National Insurance, and the Colonial Office, has been responsible since 1948 for the control and co-ordination of the welfare services for merchant seamen in the United Kingdom and of British merchant seamen abroad.

PORTS

There are over 300 ports in the United Kingdom. It is estimated that 125 million tons of imports passed through the ports in 1961, and 31 million tons of exports and re-exports, including 7 million tons of coal.

The Port of London, with 69 miles of waterway and over 4,000 acres of dock estate, including 36 miles of deep water quays, is the largest port in the Commonwealth, and with New York and Rotterdam is one of the three largest ports in the world. Goods of every kind, from meat to marble, from plywood to perfume, pass through the docks; in the year 1961, 59 million tons of cargo were handled. Imports are distributed all over the United Kingdom, though the port supplies, primarily, Greater London and the home counties. The Thames Navigation Service, operating from Gravesend, provides navigational surveillance and information, by means of radar and radiotelephone and other methods, for vessels between the estuary and London Bridge.

Liverpool is the second largest port and the major export cargo outlet of the United Kingdom. The port handles one-fifth of Britain's grain imports, and has one of the largest grain-handling plants in Europe. There are tobacco warehouses with a capacity of 70,000 casks, and for wool imports, a warehouse with a capacity of 30,000 bales. In 1961, 8.5 million tons of imports (excluding petroleum and cattle) passed through the port. Full use of the new terminal at Tranmere caused imports of oil to rise from under a million tons in 1960 to 7 million tons in 1961, and crude oil is now the major commodity entering the port of Liverpool.

Manchester is an inland port, access to which is by the Manchester Ship Canal. Petroleum is both the main import and the main export. At Eastham is the largest oil dock in the United Kingdom, covering 19 acres.

Southampton is the chief port for ocean passenger traffic, and the principal port for imports of deciduous and citrus fruits. Southampton's value as a port is enhanced by its double tides and its easy access to London. A considerable volume of oil for the refinery at Fawley (see p. 366) is handled.

Newcastle upon Tyne and the other Tyne ports serve the industrial north-east of England and comprise the most important coal-shipping and largest ship repairing centre in the country.

Hull, on the Humber estuary, serves particularly the industrial centres of Yorkshire and the Midlands, and is one of the largest white fish ports in the world.

Middlesbrough is one of the largest importing centres in Britain for iron-ore, and exports mainly steel and engineering products.

Swansea has the largest trade of the group of ports serving South Wales. As well as coal, Swansea exports the steel and tinplate manufactured in its immediate neighbourhood.

Bristol and nearby *Avonmouth* serve the industrial Midlands as well as the city of Bristol itself, and also have a large coastal trade. About 7 million tons of cargo are handled annually, including a quarter of Britain's banana imports and one-fifth of its tobacco imports. There are also extensive oil installations.

Glasgow, the principal Scottish port, serves as an entrepôt centre for the industrial area of central Scotland, and is the principal outlet for exports of Scotch whisky.

Leith is the port of the city of Edinburgh. The chief import is grain and the main export coal from the Lothian coalfields.

Belfast is the principal port of Northern Ireland and handles the main traffic across the Irish Sea.

Developments

At the end of 1961 port improvement projects costing some £48 million were in progress. Among the most important were improvements to the port of Hull, costing some £6 million and due for completion in 1963, and a new dry dock, quay and tanker-cleaning installation at Greenock on the Firth of Clyde, expected to cost over £4 million and to be completed in 1964. At Bristol a programme for providing additional grain-handling and storage facilities is in hand, and a new 30,000-ton granary, with services, costing £1.4 million will be completed in 1963. Important developments are in hand at London, Liverpool and other ports, including the Canada-Langton dock improvement scheme at Liverpool, due for completion by the end of 1962 at a total cost of about £18 million.

Ownership

Since 1948 about a third of the total port capacity has been in public ownership. Prior to the Transport Act, 1962, the majority of these ports were managed by the British Transport Docks Division; they are now to be managed by the British Transport Docks Board (see p. 369). The ports of Cardiff, Hull, Swansea and Southampton are among those to be controlled by the Docks Board. The conservancy authorities at Southampton and Hull are the Southampton Harbour Board and the Humber Conservancy Board respectively.

Certain ports and docks used largely for the cross-channel services of the railways are administered by the British Railways Board: examples of these are Folkestone, Holyhead, Heysham, Stranraer and Parkeston Quay (at Harwich).

In 1961 shipping arrivals and departures at British Transport docks, at which over 17,000 were employed at the end of that year, totalled over 104 million net tons, and the total cargo handled was about 59 million tons.

Other ports are controlled by public trusts on which are represented users of the port (such as shippers, importers and shipping companies) and other bodies, such as local authorities. Examples are London (controlled by the Port of London Authority), Liverpool (Mersey Docks and Harbour Board), Belfast (Belfast Harbour Commissioners), Glasgow (Clyde Navigation Trust) and the Tyne ports (Tyne Improvement Commission). The *Port of London Authority* has 28 members, nominated by Government departments, local authorities, port users and the Corporation of Trinity House. A few ports—Bristol is the most important example—are owned by the town or city council and controlled entirely by a committee of the council. Finally, there are about 100 ports which are privately owned. Manchester is the only major port so owned—by the Manchester Ship Canal Company—and here the Manchester City Council exercises considerable control by appointing 11 of the company's 21 directors.

The powers and responsibilities of the port authorities are, in the main, set down in private Acts of Parliament. A model set of clauses dealing with many of the details is set out in the Harbours, Docks and Piers Act, 1847.

Most ports, other than those owned by the British Transport Commission, are represented on the *Dock and Harbour Authorities' Association*, formed in 1917 to represent the common interests of port authorities in their relations with Government, shipowners and traders.

Labour

There are about 140,000 people employed in the operation of ports in the United Kingdom. Just under half of these are administrative, clerical and technical staff, and pilots, lightermen and customs officials. Over half are the dock workers (popularly called 'dockers') who do the physical handling of cargo.

Shipping arrivals and departures do not all conform to a regular schedule, with the result that there is sometimes too much work for the dock workers available, sometimes too little. Dock labour was therefore largely casual labour until 1941, when war-time schemes were introduced to control the port registers of employers and workers. The war-time arrangements were superseded in 1947 by a permanent scheme administered by the *National Dock Labour Board*, which consists of a chairman, vice-chairman, and eight members appointed by the Minister of Labour, four to represent employers and four to represent employees. Workers on the board's registers now receive a guaranteed minimum wage for attendance, even when there is no work available. The National Joint Council for the Port Transport Industry agreed in 1959 to a pension scheme which came into operation in January 1961.

Tanker Terminals

Most of the oil tankers coming to the United Kingdom to discharge crude oil are berthed at special tanker terminals which are near the oil refineries and are owned and operated by the oil companies. The maximum deadweight tonnage of tankers able to use some of the most important terminals is: Finnart (West of Scotland) 100,000; Isle of Grain (Thames estuary) 42,000; Coryton (London) 45,000; Purfleet (London) 32,000; Thames Haven (London) 60,000; Tranmere (Liverpool) 65,000; Milford Haven 100,000; and Fawley (Southampton) 65,000. Long pipelines connect Finnart with the refinery at Grangemouth on the Firth of Forth, and Milford Haven with the refinery at Llandarcy.

New terminals for crude oil are planned at Milford Haven and on the River Tees, whilst the capacity of existing terminals on the Thames and at Southampton is also being increased by dredging.

INLAND TRANSPORT

The dense passenger and freight traffic of Great Britain¹ is carried mainly by road and rail, although coastal shipping and, to a lesser extent, inland waterways are important in carrying certain types of freight, particularly bulk cargoes.

Part of the inland transport system of Great Britain is nationalised; namely, the railways, London passenger transport, certain road haulage and road passenger services, inland waterways and some of the vessels on them. Many local authorities and private

¹ For an account of inland transport in Northern Ireland, see p. 381.

firms run road passenger services, while road haulage is largely, and coastal shipping entirely, in the hands of private enterprise.

Table 23 gives comparative figures relating to the carrying activities of the nationalised transport undertakings in Great Britain. At the end of 1961 the nationalised section owned 25 per cent of the 91,400 public road passenger vehicles and over 2 per cent of the 1,394,900 road goods vehicles in use. British Railway and Road Services and London Transport were responsible for 42 per cent of the 15,219 million passenger journeys made in public passenger vehicles in 1961. In the spring of 1962 there were 6 million motor cars and 1.8 million motor cycles, scooters and mopeds licensed for use on the roads.

In 1958 the Ministry of Transport made a sample survey of goods transport by road. According to this survey, 76 per cent of the total tonnage carried in 1958 (estimated at 1,320 million tons) went by road, while in terms of ton-mileage¹ the proportion was 45 per cent. The railways accounted for 19 per cent of all tonnage carried and 35 per cent of ton-mileage. The proportions for coastal shipping were 4 per cent and 20 per cent, respectively, and for inland waterways 1 per cent of the total tonnage. Although the volume of goods transported by the railways was reduced considerably in 1958 by the fall in demand for coal and for iron and steel, the survey affirmed that it was clear that, whatever unit of measurement was used, road transport was now the major means of inland carriage of goods. Of the total ton-mileage carried by road and rail in 1958, 56 per cent was by road. The corresponding figure for 1961 was estimated to be 60 per cent.

Between 1958 and 1961 the number of vehicle-miles travelled by motor cars on the roads of Britain is estimated to have increased by 36 per cent, while in the case of light vans and other goods vehicles the increases were 35 and 17 per cent respectively. The growth of private and commercial motor traffic is causing congestion problems of increasing severity, especially in large cities (see p. 378).

THE NATIONALISED TRANSPORT UNDERTAKINGS

The present role and structure of the nationalised transport undertakings are the result of a series of legislative measures passed over the last 15 years.

Transport Legislation, 1947-56

On 1st January, 1948, in accordance with the provisions of the Transport Act of 1947, the British Transport Commission (BTC), came into being and assumed control of Britain's railways, all railway-owned steamships, docks, hotel and road transport interests, most of the country's canals (including all those owned by the railways) and the whole of the London passenger transport system. In addition, the BTC was to arrange for the gradual acquisition of privately owned long-distance road haulage firms. Road passenger transport outside London was not taken over, but the BTC was given powers to prepare area schemes for co-ordinating passenger services by road and rail, including power to acquire road passenger undertakings for this purpose. A considerable amount of road haulage, several waterways and many docks were left outside the commission's scope.

The Conservative Government which took office in 1951 announced a new policy for the operation of public transport, including decentralisation of the railway administration, greater freedom to adopt normal commercial practice (particularly

¹ Ton-mileage is calculated by multiplying the tonnage carried by the actual distance it was transported.

in charging), the partial return of long-distance road haulage to private enterprise, and the revocation of the commission's power to make schemes for the co-ordination of road and rail passenger services. The policy was put into effect by the Transport

TABLE 23
NATIONALISED INLAND TRANSPORT UNDERTAKINGS
OPERATING AND REVENUE STATISTICS FOR MAIN SERVICES

	Year	Distance served miles	Passenger miles sold (a) millions	Receipts per passenger mile pence	Freight ton- miles (b) millions	Staff at 1st January thousands	Gross receipts (carrying activities) £ million
British Railways	1955	19,061	20,308	1.40	21,353	577	440.0
	1960	18,369	21,547	1.68	18,650	519	478.6
	1961	18,214	21,061	1.79	17,590	515	474.7
Road Haulage British Road Services	1955	—	—	—	23(c)	56	55.7
	1960	—	—	—	16	36	55.5
	1961	—	—	—	16	36	57.9
Road Passenger Services Provincial and Scottish	1955	—	11,172	1.17	—	59	54.8
	1960	—	10,126	1.47	—	57	63.4
	1961	—	9,993	1.58	—	57	67.0
London Transport Railways	1955	253	3,469	1.42	—	90(d)	21.0
	1960	258	3,203	1.97	—	77(d)	27.6
	1961	244	3,058	2.24	—	76(d)	29.8
Road Services	1955	3,021	7,656	1.67	—	—	53.2
	1960	3,224	5,942	2.30	—	—	57.6
	1961	3,126	5,653	2.51	—	—	60.0
Inland Waterways	1955	1,430(e)	—	—	184	4	1.0
	1960	1,236(e)	—	—	169	5	1.0
	1961	1,192(e)	—	—	164	5	1.0

(a) Sum of miles travelled by each passenger.

(b) Freight carried (in long tons of 2,240 lb.), multiplied by distance travelled in miles.

(c) Freight carried (in long tons of 2,240 lb.).

(d) Figures refer to all London Transport.

(e) Figures refer to miles of canal in commercial use.

Sources: British Transport Commission:
Annual Reports and Accounts

London Transport:
Annual Reports

Monthly Digest of Statistics.

Act of 1953, and the actual reorganisation of the BTC was completed by 1st January, 1955. A further Act, the Transport (Disposal of Road Haulage Property) Act, 1956, provided for the completion of the denationalisation of road haulage.

The British Transport Commission

The British Transport Commission (whose members were appointed by and responsible to the Minister of Transport) was a policy-making and not a managing body. Management functions were carried out by seven divisions, corresponding to various activities, namely: British Railways, British Road Services, the Tilling Bus Group, the Scottish Omnibus Group, British Transport Docks, British Waterways, and British Transport Hotels and Catering Services.

The London Transport Executive was established by the Transport Act, 1947, as an agent of the BTC to operate road passenger transport and the underground railways in the London area.

Finance. The BTC was required to submit an annual report and statement of accounts to the Minister, who laid it before Parliament. The Commission was under obligation to cover its outgoings, taking one year with another, but during the period of railway modernisation it was permitted to carry forward the deficits arising on British Railways. Meanwhile, in order to meet financial needs during the critical years of reconstruction, the Government, under the Transport (Railway Finances) Act, 1957, and the Transport (Borrowing Powers) Act, 1959, was empowered to make repayable advances to the Commission of up to £400 million to meet the annual revenue deficits until 1962. Since the financial year 1960-61 these deficits have been met by the Exchequer from revenue and are not repayable advances. The Commission's ordinary borrowing powers (i.e. excluding those to meet deficits) have been limited to £1,200 million.

Gross receipts from the Commission's principal carrying activities in 1961 were: passenger traffic, £319 million; freight traffic, £374 million; and miscellaneous, £18 million. In addition, gross receipts from other principal activities amounted to £58 million. Interest on British Transport Stock and other interest charges amounted to £103 million. Fixed assets at the end of 1961 were valued at £2,097 million, of which £1,798 million related to British Railways.

Reorganisation: the Transport Act of 1962

The Transport Act of 1962 is a continuation of the policy announced by the Government in 1951 and results from a situation described largely in the 1960 report on British Railways from the Select Committee on Nationalised Industries. A main feature of the situation by 1960 was the large accumulated deficit of the BTC. By the end of 1961 this had risen to £573 million; for British Railways alone, the accumulated deficit since 1947 amounted to £650 million. The BTC was found to be impeded by its cumbersome structure and those in charge found it difficult to reconcile the statutory duty to provide services to the public with economically desirable policies; the BTC was also hampered in operating commercially by numerous restrictions such as control over charges and the common carrier obligation dating from the time when the railways had a virtual monopoly of transport.

Statutory Boards. According to the Transport Act, 1962, the BTC will be dissolved and each of its main activities will be managed by a separate board holding its own assets and responsible for its own capital debt.¹ Four boards for British Railways,

¹ The transfer of the undertakings and property of the BTC to these new undertakings is to take effect on a vesting date to be fixed by the Minister.

London Transport, British Transport Docks and British Waterways will each be incorporated under statute and will be responsible directly to the Minister of Transport, who will appoint their members. Road passenger and haulage undertakings, such as British Road Services, the Tilling Bus Group, the Scottish Omnibus Group, Road Freight Shipping Services, Thomas Cook and Son and other holdings, will be operated as companies incorporated under the Companies Act, with their own boards; they will be grouped under a new Transport Holding Company, responsible to the Minister of Transport, who will appoint its directors. The hotel property of the BTC will be transferred to a subsidiary hotel company, the shares of which will be held by the British Railways Board.

The cross-channel shipping services operated by British Railways and certain ports and docks used for them will pass to the British Railways Board.

Duties and Rights of the Boards. Each board is required to conduct its business so as to pay its way, taking one year with another, and to set up general reserves. The Railways Board and the British Waterways Board may receive financial assistance from the Exchequer for five years from vesting date. All the boards may borrow up to specified limits from the Minister with the approval of the Treasury. The Act facilitates operations on a commercial basis by conferring on the boards powers to sell or develop their land and to construct and operate pipelines, and by freeing them from controlled charges schemes. Except for railway passenger fares in the London Passenger Transport area and road passenger fares in an area including London, the boards are free to fix the rates charged for their services. The boards are also released from common carrier obligations as regards carriage by rail or inland waterway.

Financial Changes. The Treasury will assume responsibility for outstanding British Transport stock (amounting to about £1,450 million), so that interest on this debt will be met in future out of taxation instead of the BTC's receipts. The Treasury will also assume responsibility for Exchequer advances for capital purposes, which are expected to amount to £700 million by the end of 1962, and for £300 million lent to the BTC since 1957 to meet revenue deficits. Altogether, the community as a whole will assume responsibility for debt amounting to about £2,450 million. Of this amount, £475 million representing accumulated revenue losses will be written off, leaving about £1,975 million to be apportioned among the new undertakings as debt due to the Exchequer. About £675 million of the Railways Board's debt will not be interest bearing.

Nationalised Transport Advisory Council. A Nationalised Transport Advisory Council of up to twelve members is to be established to advise the Minister on questions relating to the co-ordination, or any other aspect, of the nationalised transport undertakings.

Transport Tribunal. The Transport Tribunal, set up under the 1947 Act, had jurisdiction over the charges schemes governing maximum charges which the British Transport Commission could make in respect of all its activities save road services. It could also hear appeals arising from applications for road haulage (goods vehicles) licences. Under the 1962 Act, the tribunal is to sit in two divisions, one having jurisdiction over London rail and road fares and the other continuing to hear appeals relating to road carriers' licences.

Transport Users' Consultative Committees. The 1947 Act set up a structure of Area Transport Users' Consultative Committees, which enables transport users to put forward criticisms and suggestions. There is also a Central Committee which can make

formal recommendations to the Minister; he may then issue a directive to the BTC which must give effect to it. These committees are to continue under the 1962 Act, with some changes in functions and membership. In addition to their former functions, the Area Committees are to consider objections from users to proposals put forward by the Railways Board or the London Board to discontinue uneconomic railway passenger services. In such cases closures may not be carried out until the Minister has considered a report from the Area Committee and given his consent.

Coastal Shipping. The main features of the existing safeguards for coastal shipping are that a complaint may be made on behalf of coastal shipping to the Transport Tribunal if charges made or proposed by the railways in competition with coastal shipping place coastal carriers at an unfair advantage, or are inadequate in relation to the cost of the service provided. The 1962 Act provides that complaints of this kind can be made to the Minister.

RAILWAYS

Britain was the pioneer of railways. The opening of the Stockton to Darlington Railway in 1825, and of the Liverpool and Manchester line in 1830, when George Stephenson's famous 'Rocket' locomotive was used, began a century of widespread railway development. The great period of railway building was from 1840 to 1875, with a short lull following the collapse of the speculative railway boom in 1846.

During the first world war, the railways came under centralised Government direction through a Railway Executive Committee. This experience emphasised the need for concentration and a reorganisation of the whole rail system. The Railways Act of 1921 amalgamated 123 private companies into four large groups: the London, Midland and Scottish; London and North Eastern; Great Western; and Southern. In the 1920s and 1930s the railways suffered from the prolonged industrial depression and the growing competition from road transport. The causes of road competition were twofold: first, motor transport often offered cheaper and better facilities; secondly, the statutory regulation of the railways' charging system resulted in the loss of some lucrative traffic and the forced retention of unprofitable traffic.

In 1938 the railways made proposals for relief from statutory regulation of charges, but the outbreak of war in 1939 postponed action and the railways again became controlled by the Government.

Organisation under Public Ownership

The Transport Act of 1947 brought the railways under public ownership as a single enterprise, British Railways, grouped in six regional sub-divisions and operated under the overall management of a Railway Executive established as the agent of the BTC.

The 1953 Transport Act abolished the Railway Executive and provided for a reorganisation of the administration. The operation of British Railways was placed in the hands of six area boards (the areas corresponding with the former regions), day-to-day management being left to the general managers of the areas. Important matters affecting general policy were reserved to the BTC and were dealt with by the British Railways Division and the Railways Sub-Commission.

Under the Transport Act, 1962, the BTC's functions will pass to the British Railways Board. Area boards will be replaced by regional railway boards to which the British Railways Board will delegate responsibility for the management and operation of their regional railway systems.

Operations

Statistics relating to the operations and traffic revenue of British Railways are given in Table 23. The number of passenger miles travelled increased between 1955 and 1960; but there was a slight fall in 1961, compared with 1960. The urban and suburban passenger commuting services for London and other large conurbations carry about 2½ million passengers a day, mainly to and from their work in brief rush hour periods. These services account for about half the annual total of 1,000 million passengers on British Railways. The number of freight ton-miles carried decreased by 18 per cent between 1955 and 1961. Traffic revenue increased, partly owing to increases in fares and freight charges.

British Transport Hotels and Catering Services owned refreshment rooms at 339 stations and also 38 hotels. These contributed £20 million to gross receipts. At 85 of the stations, tenants operated refreshment services.

Development

Capital Expenditure. Because of the economic difficulties of the early 1930s, the strain of the war years, and the numerous post-war claims on national resources, for many years it had not been possible for the railways to carry out any large modernisation schemes or to maintain an adequate replacement programme. The Government and the BTC decided that this should be remedied and, in 1955, the BTC produced a modernisation plan which was designed to transform virtually all the services offered by the railways. Since then the plan has been modified in the light of prevailing conditions but in the last five years some £770 million has been spent on the modernisation of the railways, and capital expenditure will continue to be substantial.

Progress in Modernisation. In 1955 there were on main lines about 18,000 steam, 450 main line diesel and 71 electric locomotives. At the end of 1961 the corresponding figures were about 11,500 steam, 1,285 diesel and 158 electric locomotives. In addition, there were 4,000 diesel and 6,890 electric passenger-carrying multiple units. The phase of railway modernisation represented by the diesel multiple unit has now been completed. The total fleet of diesel shunting locomotives at the end of 1961 was nearly 1,900, which almost completed the BTC's requirements in this field.

Passenger services have continued to improve as steam is replaced by electric or diesel traction. The replacement of out-of-date passenger coaches by new stock, with improved amenities, continues and diesel electric *de luxe* trains are in operation on routes from London to Manchester, to Birmingham, to Wolverhampton, and elsewhere.

The efficiency of freight services is being improved as new and modern type freight vehicles come into service and as facilities become available for concentrating freight traffic at fewer and better equipped and better sited marshalling yards and terminals. For example, a new marshalling yard is being constructed at Sheffield at a cost of over £6.5 million. This yard will be capable of sorting wagons quickly for the 130 different destinations for which traffic passing through the area requires to be marshalled. The construction of major freight facilities at a number of other places is well under way; for example, that at Kingmoor (Carlisle) costing about £5 million, and at Stourton, in Yorkshire, costing over £4 million. Many others, such as the hump marshalling yard at Port Talbot (Margam) which is the most modern in Europe and cost about £2.8 million, have been completed and are now in use.

The installation of modern colour-light signalling, coupled with the installation of either electro-mechanical or power operated signal boxes and the rapid extension of the automatic warning system, is enabling faster and more frequent trains to be run

with a greater degree of safety. A scheme, costing some £1.5 million, for the complete modernisation of signalling over 25 miles of the main line between London and Reading is in hand. When completed, the entire line from London to Reading—which carries 200 passenger, parcel and freight trains in each direction daily—will be controlled by multiple-aspect colour-light signalling. One of the principal features of the new installation will be a new signal box at Slough, from which the movements of trains within an area of about 16 miles will be controlled.

Electric and Diesel Traction. One of the most important suburban electrification schemes carried out is that of the Glasgow suburban train services north of the Clyde. The extension of the Southern Region's electrification of the line to the Kent coast at a cost of over £20 million has been completed. Good progress is also being made on the electrification of the London Midland Region's lines from Euston via Crewe to Liverpool, including the lines serving the industrial complexes around Birmingham, Northampton and Stoke-on-Trent, at a cost of about £175 million. This includes the cost of rolling-stock and works such as overhead equipment, signalling improvements and station modernisation.

On other main lines, and in specific areas, steam traction is being eliminated by diesel traction as quickly as economic and other factors allow.

ROADS

The advent of the motor vehicle made it necessary for the Government to set up a central road authority; accordingly, the Road Board was established by the Development and Road Improvement Funds Act of 1909. In 1919 the board's responsibilities were taken over by the newly established Ministry of Transport.

In April 1961 Great Britain had 195,220 miles of public highway. There were 130 miles of motorway, 8,340 miles of trunk roads, 19,750 miles of Class I roads, 17,620 miles of Class II roads, 48,930 miles of Class III roads and 100,450 miles of unclassified roads. Roads are classified according to their traffic value, those of purely local traffic importance remaining unclassified. On maps and signposts the trunk and Class I roads can usually be identified by the letter 'A' in front of a route number, and Class II roads by the letter 'B'. Trunk roads are the main arteries of national traffic and the whole cost of their upkeep is met from Exchequer funds. The Minister of Transport is the highway authority for trunk roads in England and Wales and on these roads he administers expenditure, which is provided wholly from central Government sources, although for many purposes he employs local authorities as his agents. The highway authority for Class I, Class II and Class III roads is, in general, the council of the county or county borough in whose area the road lies. The Minister makes grants towards approved expenditure on construction and improvement of these roads at the rate of 75, 60 or 50 per cent according to the class of road. (Classified roads include nearly all the main streets of the large cities.) The Secretary of State for Scotland has corresponding responsibilities for roads in Scotland. Unclassified roads are entirely the responsibility of the local authority in whose area they lie.

Development

While it was impossible in the years immediately following the second world war to spend much more on the roads than was required for their essential maintenance, a large road-building programme has now been in progress for several years. Central Government expenditure on new construction and major improvements has recently been rising steadily: for the whole of Great Britain in the year 1959-60 it was

£64 million and in the year 1962-63 it is expected be £102.5 million. The current programme includes Britain's first motorways, constructed for the use of limited classes of traffic under the powers granted to the ministers by the Special Roads Act, 1949 (now consolidated in the Highways Act, 1959). A five-year programme for the improvement of classified roads was started in the spring of 1961; the estimated cost is £150 million and the chief aim is the relief of urban congestion.

The motorways form part of a programme designed to provide a national network of modern through routes. At the same time, work done under this programme will eliminate the worst bottlenecks in urban areas and thus give free outlets from the big cities and from other main sources of traffic to the trunk routes, while smaller road-works will be undertaken to the maximum possible extent all over the country.

Motorways. It is planned that 1,000 miles of motorways should be completed by the 1970s. At the end of July 1962 there were 176 miles of motorway in use and 120 under construction; tenders had been invited or schemes prepared for another 300 miles. A further 400 miles were being surveyed for inclusion in the second half of the 1960s. The motorways in Great Britain open to traffic or under construction were:

M 1—London to Yorkshire. The projected length of this motorway is about 190 miles, of which 73 were open to traffic in July 1962.

M 2—Medway motorway, London to Dover. The 25 miles of this motorway are under construction and are expected to be in use in 1963.

M 4—London to South Wales. The projected length of this road, which will link London with Cardiff and Swansea and will include a new £11 million bridge over the Severn, is 134 miles. By July 1962 a 6-mile bypass at Maidenhead had been completed and a further 24½ miles were under construction.

M 5—Birmingham to Bristol. Of this 102-mile motorway, the first 28 miles running south from Birmingham were opened in July 1962. The 20½-mile Ross Spur (M 50), opened in 1960, will link the M 5 with the existing road system leading from Ross-on-Wye (Herefordshire) to South Wales.

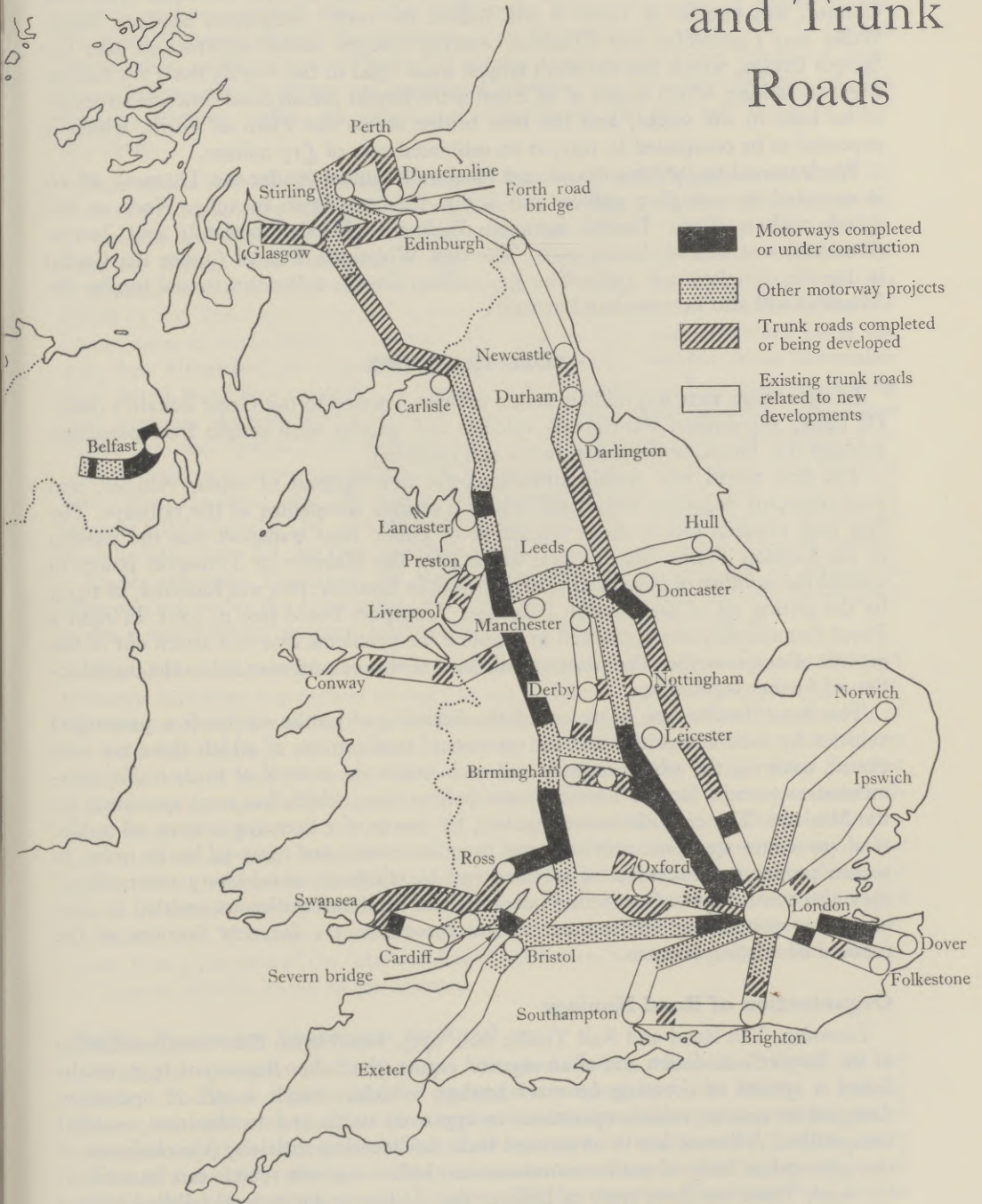
M 6—Birmingham to Penrith. The projected length of this road, which will run from Dunston (north of Birmingham) to Penrith (Cumberland) is 153 miles. The completed length of 20 miles includes the 8½-mile Preston bypass, the first section of motorway, opened in 1958. A 78½-mile section between Birmingham and Preston is under construction. A system of motorway links will connect this road at its southern end with the M 1 and M 5.

In Scotland, the construction of 22 miles of motorway will have been authorised by mid-1964, provided the necessary funds are available.

Other Roads. Notable schemes for improving existing trunk roads include those for the Great North Road (A1) between London and Newcastle, estimated to cost £50 million: over 150 miles of dual carriageway are already open, several sections built to motorway standards. Improvements are being made on the A40 route, linking London with Gloucester and South Wales via Oxford. A 13½-mile bypass around High Wycombe in Buckinghamshire, built to motorway standards, has been planned. Eleven schemes to improve trunk roads, costing altogether £5.4 million, were started in Great Britain in the last half of 1961.

In Scotland, it is expected that the improvement of some 42 miles of trunk road by the introduction of dual carriageways will be authorised by mid-1964. The schemes

Motorways and Trunk Roads



in question and the motorways are concentrated in central Scotland, where industrial traffic is greatest.

Bridges and Tunnels. An important bridge at Queensferry over the River Dee, near Chester, was opened in 1962: it will relieve the traffic congestion between North Wales and Lancashire and Cheshire. Among bridges under construction are: the Severn Bridge, which has the sixth largest main span in the world; the £2.3 million Medway Bridge, which is part of M 2 and is the largest pre-stressed concrete structure of its kind in the world; and the new bridge across the Firth of Forth, which is expected to be completed in 1963 at an estimated cost of £17 million.

Work started in 1960 on the second Blackwall Tunnel (under the Thames), which is expected to cost £6.5 million and is due for completion in 1965. Work on the £12.6 million Tyne Tunnel between Wallsend (Northumberland) and Jarrow (Durham) was started during 1961. The first Whiteinch Tunnel (under the Clyde) is due for completion in 1963. The £11 million Dartford-Purfleet tunnel (under the Thames) will also be completed in 1963.

ROAD TRANSPORT

In 1961 there were 9.9 million motor vehicles licensed to use Great Britain's roads. Of these, 1.4 million were goods vehicles and 92,000 were public road passenger vehicles (i.e. buses, trolleybuses, trams and taxicabs).

The first world war greatly stimulated the development of motor vehicles, and road transport began to make itself felt as a serious competitor of the railways. The first step towards Government regulation of public road transport was the passing of the London Traffic Act of 1924, which gave the Minister of Transport power to control the number of buses and their journeys in London; this was followed, in 1933, by the setting up of the London Passenger Transport Board (see p. 380). In 1928 a Royal Commission was appointed to examine the problems that had arisen out of the growth of motor traffic. The recommendations of this commission led to the introduction of further legislation.

The Road Traffic Act, 1930, ended the licensing of public service (i.e. passenger) vehicles by local authorities and set up instead traffic areas, of which there are now eleven, covering the whole country and each under the control of three traffic commissioners (except for the London metropolitan area, which has one) appointed by the Minister. The commissioners regulate, by means of a licensing system, all public road passenger transport services, and sanction routes and time-tables in order to secure proper co-ordination of services and to eliminate unnecessary competition; they also control fares. Competing operators and local authorities are entitled to raise objections concerning applications to the commissioners for new licences or the renewal of existing licences.

Organisation of Road Haulage

Licensing. The Road and Rail Traffic Act, 1933, based upon the recommendations of the Royal Commission and of an experts' report (the Salter Report) of 1932, established a system of licensing for road haulage vehicles, which is still in operation, designed to restrict vehicle operations to approved needs and to eliminate wasteful competition. A licence has to be secured from the licensing authority (the chairman of the appropriate body of traffic commissioners) before a goods vehicle can be used on the road. There are three types of licence: the 'A' licence for general public haulage; the 'B' licence for public haulage limited to certain goods or certain areas and covering

also the carriage of the licensee's own goods; and the 'C' licence for the carriage by traders solely of their own goods. Applications for 'A' and 'B' licences are examined by the licensing authorities to see if they are necessary in view of existing transport services, and competitors may raise objections. There is a right of appeal to the Transport Tribunal against the decision of the licensing authorities. The 'C' licence is granted on application, as of right. All goods vehicle operators are bound by regulations concerning the fitness and loading of vehicles, the movement of large vehicles likely to obstruct traffic, the keeping of records and the pay and hours of their employees.

State-owned Services. Under the Transport Act, 1947, the BTC took over 'A' and 'B' hauliers predominantly engaged on long-distance haulage; vehicles operating under 'C' licences and those used for carrying certain specialised traffic were not affected. After the change of Government in 1951, the Transport Act of 1953 required the BTC to dispose of the bulk of its road haulage undertaking. In 1956 this process was halted by the Transport (Disposal of Road Haulage Property) Act, which enabled the Commission to retain under its control more vehicles than were permitted under the 1953 Act. Altogether, the Commission disposed of 20,000 vehicles. Since September 1956 British Road Services (BRS), a division of the Commission, have been conducting their business through the medium of five companies which together own about 16,000 vehicles: British Road Services Ltd. (general haulage); BRS (Pickfords) Ltd. (special traffic and some contracts); BRS (Contracts) Ltd.; BRS (Parcels) Ltd.; and BRS (Meat Haulage) Ltd. The shares of all these companies are owned by the BTC; those of BRS (Parcels) Ltd. and BRS (Meat Haulage) Ltd. are still subject to disposal at some later date. All the Commission's vehicles are subject to the licensing system.

Under the 1962 Transport Act these companies will be operated as companies incorporated under the Companies Act, with their own boards, and will be grouped under a new holding company responsible to the Minister of Transport.

Size of the Industry. The number of licensed vehicles in the road goods transport industry rose from 1.2 million in 1955 to 1.4 million in 1960. The percentages with 'C' licences were 78.3 in 1955 and 85.6 in 1960. In 1961, 1,253,800 or 87.1 per cent of the 1.4 million haulage vehicles were operated under 'C' licences. Of the other 185,200 vehicles, with 'A' and 'B' licences, about 12,800 are operated by British Road Services and the rest are operated by some 61,000 hauliers. There are only a few operators with large fleets of vehicles in any of the licence categories. 'C' licence vehicles include a large number of small vehicles used locally in the delivery of groceries and other goods. Other vehicles in this class are engaged in long-distance carriage of traders' own goods. A sample survey made by the Traders Road Transport Association in 1958 indicated that 'C' licence operators with fleets of over 100 vehicles were probably fewer than 3 per cent of the total number of operators, but accounted for over half the 'C' licence vehicles in use in the country.

Public Passenger Transport by Road

With the exception of the London transport system which is operated by the London Transport Executive, road passenger transport in Great Britain is run by about 5,000 operators, 94 of them being local authorities owning and operating urban bus services. About 4,000 are independent operators of coaches and of these, 3,600 have not more than 5 vehicles. Most of the remainder operate both bus and coach services and belong to three main groups—Tilling, Scottish Omnibuses and British Electric Traction. The British Electric Traction Group is a private concern but

substantial shareholdings in many of its companies, without any controlling interest, are held by the British Transport Commission, who own the Tilling and Scottish Omnibus groups outright.

There are 49 concerns operating fleets of over 250 vehicles, 12 of which are local authorities, the largest being the Birmingham Council, with 1,795 buses and coaches. Glasgow, where the last tramcars in Britain made their final journey in September 1962, has 193 trolleybuses and 1,360 buses and coaches; Manchester has 1,350 buses and 116 trolleybuses. During 1961 Birmingham transport carried 438 million passengers, Glasgow, 478 million and Manchester, 382 million.

Road Safety Measures and Traffic Problems

Britain has the highest density of traffic in the world, giving rise to pressing problems of road safety. In 1961, 6,908 people were killed on the roads and 342,859 injured. This compares with 7,343 persons killed and 231,603 injured in 1934, when there were only 2½ million motor vehicles on the roads—an indication that the problems have, to some extent, been held in check by road safety measures introduced under Acts of 1934, 1956, and 1960. Among these are a speed limit of 30 miles an hour in built up areas, modified later by the introduction of a 40 m.p.h. limit on certain main roads on the outskirts of London and a 50 m.p.h. limit on certain roads during peak periods of summer holiday traffic; the requirement that all new drivers must pass a driving test; the provision of pedestrian crossings, including some illuminated by flashing beacons and marked with conspicuous white stripes (zebra crossings); and a new system of road markings, including double white lines at dangerous bends, to keep traffic to its own side of the road and prohibit parking.

Private motor cars and motor cycles and goods vehicles up to 30 cwt. which are seven years old or more (six years or more from November 1962) may not legally be used on public roads without a valid certificate of road worthiness.

All drivers of motor vehicles—including motor cycles, motor scooters and powered pedal cycles—have to pass a driving test before being granted a substantive licence to drive¹; until they pass the test they must obtain a 'provisional' licence which necessitates their displaying 'L' (Learner) plates and, in all cases where vehicles are constructed to carry passengers, other than pillion passengers, learner drivers must be accompanied by a qualified driver.

The Road Traffic Act, 1962, redefined the standard of unfitness to drive a motor vehicle when the driver is under the influence of alcohol or drugs and increased the severity of penalties for dangerous driving.

In addition, vigorous road safety campaigns are conducted by local authorities with the aid of Government grants. The Royal Society for the Prevention of Accidents, which acts as the Government's agent in this connection, assists and co-ordinates these campaigns. The police and education authorities are actively at work in the cause of road safety. The standard of conduct for all road users—pedestrians and drivers—is set out in the *Highway Code*. A failure to observe the code does not of itself render a person liable to criminal proceedings but may be taken into account in any such proceedings. There is a Pedestrians' Association for Road Safety; a voluntary society which promotes the reduction of road accidents.

Relief of Congestion. The Road Traffic and Roads Improvement Act, 1960, permits the employment of traffic wardens (with strictly limited powers), and provides for fixed penalties (the 'ticket' system) for parking offences. Other measures in the Act,

¹ For overseas visitors' licences, see Appendix.

designed to reduce traffic congestion, include the granting of greater powers of action to the Minister of Transport within London and to local traffic authorities in other areas. Several extensive schemes for the improvement of road safety and the relief of traffic congestion are being undertaken: these include 'fly-overs' at road junctions; new outlet roads from cities; and, as an experiment, the designation of certain stretches of trunk roads as 'clearways', on which waiting on the carriageway is (with certain exceptions) prohibited.

In London, street parking in certain areas is permitted only for limited periods and on payment at parking meters, and increased off-street parking facilities are being provided. In 1960 a London Traffic Management Unit was established, charged with securing the maximum use of London's streets as traffic arteries by applying modern traffic engineering techniques. Measures taken to improve the flow of traffic in the London area include the wider use of parking meters and the introduction of a one-way traffic plan in central London and the institution of peak-hour clearways on certain main roads.

INLAND WATERWAYS

In 1761 James Brindley completed the Bridgewater Canal to take coal from the collieries owned by the Duke of Bridgewater at Worsley to Manchester. This marked the beginning of canal building in modern Britain; and canals played an important part in promoting the industrial and commercial expansion of the late eighteenth and early nineteenth centuries. As railway competition developed, about one-third of the canal mileage passed to the control of the railways. During the first world war Government control of railways included railway-owned canals and, under the Transport Act, 1947, most of the country's canals passed from Government control, which had been re-established in the second world war, to that of the British Transport Commission in January 1948. Since 1955 the canals have been managed separately by the waterways division of the Commission, known as British Waterways.

Under the Transport Act, 1962, control of British Waterways is to be vested in a British Waterways Board.

The System

There are some 2,600 miles of navigable inland waterways in Great Britain, some 2,141 miles of which belong to the BTC; the remainder is still in the hands of local authorities or private companies. About 1,000 miles of the Commission's canals are narrow waterways which can generally be used only by boats not exceeding 7 feet in width, capable of carrying a load varying from 25 to 30 tons; the remainder are broad waterways and canalised rivers which can be used by craft of up to 400 tons capacity. The canals in Scotland are all broad waterways.

Of the 2,141 miles of inland waterways under the control of the BTC, 298 miles are closed to navigation or abandoned, leaving 1,843 miles still open, of which 1,192 miles are in commercial use. For administrative purposes the canals in England and Wales are grouped into four divisions, based on the main navigable river estuaries, each group under a divisional manager. In Scotland, the Caledonian Canal and the Crinan Canal each have a separate manager, and the Forth and Clyde, Monkland and Union Canals are grouped together under another manager.

In 1961 total traffic on British Waterways amounted to 9.3 million tons, of which 3.9 million tons were coal, 2.2 million tons liquids in bulk and 3.2 million tons general cargo. The total traffic is stated in net ton-miles in Table 23. Some three-quarters of

the total traffic is carried on 325 miles of the broad waterways, which are mainly canalised rivers.

Although British Waterways is the largest single operator, most of the traffic is handled by independent carriers, or by traders in their own craft. The BTC at the end of 1961 owned 15 tugs and 1,043 carrying craft, with a carrying capacity of 42,709 tons, including 158 power-driven craft with a carrying capacity of 8,484 tons.

Development

Since assuming control, the BTC has strengthened the commercial organisation; it has improved dredging methods and equipment, brought better types of craft into service, established a research organisation and undertaken various development works. Following the report, issued in 1955, by a specially appointed Board of Survey, a comprehensive development plan was begun in 1956. Under this plan, nearly £6 million is being invested in the improvement of navigation and the provision of modern equipment on the seven major waterways that carry most of the traffic—the Aire and Calder Navigation, the Sheffield and South Yorkshire Navigation, the Trent Navigation, the river Lee, the river Severn, including the Gloucester and Sharpness Canal, the river Weaver, and the Grand Union Canal (on the stretch below Berkhamsted). By the spring of 1962 at least 75 per cent of the planned improvements had been carried out, and £500,000 was to be spent on the scheme during 1962. When it is completed in 1963 the British Waterways Board will control about 300 miles of first-class waterways linking important industrial districts with ports.

In 1959 the Government set up an Inland Waterways Redevelopment Committee to consider and advise upon schemes for the development of some 700 miles of canals which could no longer be maintained economically for the purpose of transport.

The total revenue of British Waterways in 1961 amounted to £4.7 million, of which only £0.9 million arose from carrying activities. The sale of water is an important source of revenue and has trebled since 1948. British Waterways encourages pleasure boating and receipts from this source are rising but as yet constitute only just over 1 per cent of total revenue. British Waterways does not usually own fishing rights and income from this source is very small.

LONDON TRANSPORT

London is, with Tokyo and New York, one of the world's three largest cities. The area known as Greater London, within a radius of about 15 miles from Charing Cross, contains over 8¼ million people.

London's passenger transport system, in its modern sense, began in 1829 when the first omnibus, horse-drawn, appeared on the London streets. The first regular tram service, also horse-drawn, began in 1870. In 1863 the first underground steam railway, the Metropolitan, was built by digging a great trench for the line and roofing it over. In 1870 the world's first tube railway, the Tower Subway, was constructed under the river Thames; it was cable-operated and ran for only a few months. In 1890 the first electric tube railway in the world was opened, the City and South London line, and this was followed in 1900 by the opening of the Central London Railway and shortly afterwards by the electrification of the steam-operated underground lines. Meanwhile, horse-drawn buses and trams were being replaced by motor buses and electric trams.

Until 1933 there were many separate undertakings providing passenger transport facilities in London, but in that year these were all vested in a single public corporation, the London Passenger Transport Board. In 1948, with the establishment of the British

Transport Commission, the London Transport Executive took over control as an agency of the Commission.

Under the Transport Act, 1962, as in the case of the other BTC undertakings, the London Transport Executive is to be replaced by a financially independent board; it will be known as the London Transport Board.

The London Transport System

The London Transport undertaking operates all road and rail passenger transport services in the London area with the exception of the London lines of British Railways and the taxicabs. (Some 6,000 taxicabs that ply for hire in the streets are privately operated by companies or owner-drivers and are licensed annually by the metropolitan police.) London Transport's operations extend beyond Greater London to cover an area of 2,000 square miles (known as the London Passenger Transport Area) with a radius of about 25 miles from Charing Cross and with a population of some 10 million. Between 1955 and 1961 the number of passenger journeys made annually on the London Transport system fell from 4,079 million to 3,197 million, largely owing to increased private motoring and changes in leisure-time habits and also some shifting of population away from the centre of London.

London Transport's railway network stretches 18 miles from north to south and 32 miles from east to west. The total length of the railway over which London Transport trains operate is 244 miles, of which 90 miles are underground, including the longest tube tunnel in the world, 17 $\frac{1}{4}$ miles long. London Transport trains serve 274 stations. London Transport's buses and coaches travel over more than 3,100 miles of roads. To carry traffic over all this area, in December 1961 London Transport owned 4,172 railway cars, 8,145 buses and coaches and 221 trolleybuses. The total staff employed was 76,000.

By mid-1962 all tramcars and trolleybuses had been replaced by diesel buses. The underground railways have been extended, and a new £1 million station linking two lines at Notting Hill Gate was opened in March 1959. Since the beginning of 1958 the London Transport Executive has placed orders worth £30 million for new rolling stock, to be completed in 1963 at the latest, and has undertaken £7 million worth of further track improvement schemes. These were part of a general modernisation scheme for the Underground, on which nearly £40 million, including replacement of rolling stock, was to be spent in the four years to 1963. Approval for a new tube railway, estimated to cost at least £56 million, between Victoria Station and Walthamstow, in north-east London, was given by the Government in August 1962. New methods of tunnelling have been tested and proved in readiness for the construction of this tube.

PUBLIC TRANSPORT IN NORTHERN IRELAND

Passenger transport in Belfast is provided by the Belfast Corporation and private hauliers are engaged in freight transport in the cities of Belfast and Londonderry. All other public road passenger and freight services and all rail services in Northern Ireland are provided by the Ulster Transport Authority, a public body which was established under the Transport Act (Northern Ireland), 1948.

The road passenger section of the authority's undertaking operates a wide network of omnibus services and an extensive programme of coach tours. The road freight section provides a comprehensive service for the carriage of merchandise of all descriptions (including heavy indivisible loads and livestock) and can supply vehicles under contract for the exclusive use of traders. A chain of first-class hotels is also owned and operated by the authority.

In the year ended 30th September, 1961, nearly 97 million passengers, over 2.3 million tons of merchandise and over one million head of livestock were carried by road and rail services run by the Ulster Transport Authority. There were 297 miles of permanent way, 82 locomotives and 158 diesel rail cars and trailers. The route mileage of regular omnibus services was 2,766 miles and there were 1,033 omnibuses and coaches and 2,066 goods motor vehicles. The gross revenue of the Ulster Transport Authority was £9,818,000.

Roads

On 31st March, 1961, there were 13,770 miles of public roads in Northern Ireland, comprising 373 miles of trunk roads, 955 miles of Class I roads, 1,733 miles of Class II roads, 2,864 miles of Class III roads and 7,845 miles of unclassified roads.

The Ministry of Commerce is directly responsible for the trunk road system and bears the entire cost of maintenance and reconstruction work on these roads. In addition to major reconstruction schemes on trunk roads, a total of about 70 miles of motorway are planned; the first section, 7 miles long, running southwards from Belfast to Lisburn, was opened in July 1962.

The Ministry of Commerce also administers the Road Fund (the proceeds of motor vehicle taxation, driving licence fees, etc.) from which grants are paid to the local authorities (county, county borough, borough and urban district councils) who are responsible for the other roads. The rates of grant range from 90 per cent for major improvement works on Class I roads to 25 per cent for maintenance work on unclassified roads.

Gross expenditure on all roads in the financial year to 31st March, 1961, was £8.6 million and it is expected to increase in the next few years as major improvement schemes are undertaken on both trunk and local roads. Expenditure in the five-year period 1961-66 is expected to be about £56 million, compared with about £30 million in the five years to 1961.

CIVIL AVIATION

British airmen were among the first to carry mails (at the time of the Coronation of King George V in 1911) and among the first to operate regular mail and passenger services, which were inaugurated on 25th August, 1919, when a daily passenger service was opened between London (Hounslow) and Paris (Le Bourget). The year 1919 was also marked by notable pioneer flights, including the crossing of the Atlantic by John Alcock and Arthur Whitten Brown in June (both were later knighted for their achievement) and the first flight between England and Australia by Captain (later Sir) Ross Smith and his crew.

Commercial Organisation

In April 1924 four small British companies merged to form Imperial Airways Limited, which received a Government grant of £1 million spread over the next ten years. As a substantial shareholder the Government was represented on the board of directors.

Imperial Airways Limited pioneered the commercial development of inter-continental air routes (including the organisation of ground services), following up, in many cases, the exploratory work of the Royal Air Force. By 1929 there was a through service from England to India. In 1931 the first service was established to Central Africa. The first mail service to Australia started in December 1934, followed

by a passenger service in 1935. During a part of 1939 Imperial Airways operated an experimental transatlantic service for mail.

The British Overseas Airways Corporation, a public corporation, was established by the British Overseas Airways Act, 1939, and took over the undertakings of Imperial Airways Limited and British Airways Limited in 1940. During the second world war BOAC operated essential overseas air services in support of the war effort. By the end of the war, it was carrying more than twice as many passengers as in 1939 and more than three times as much freight. The routes, moreover, had efficient radio and radar systems which had been installed for war purposes and which were adapted for civilian use.

After the war British European Airways was established under the Civil Aviation Act, 1946, as a separate public corporation to cover the United Kingdom and Europe. In addition to the two large corporations, there were in 1962 about 32 independent air transport companies.

The Role of the Government

Responsibility for the general development and expansion of United Kingdom civil aviation is vested in the Ministry of Aviation. The Ministry supervises the development and production of civil aircraft and undertakes an extensive programme of research and development to meet civil as well as Service needs. It is also responsible for air safety and in this capacity is advised by the Air Registration Board and the Air Safety Board (see p. 389).

Scheduled Services: Government Policy

Up to 1949 Government policy was that independent operators should undertake charter work and the corporations should operate scheduled services. Starting in 1949, independent operators were permitted to operate certain scheduled services as 'associates' of the corporations. From 1952 the independent companies became eligible to develop new routes and new types of scheduled services. The Air Transport Advisory Council (ATAC), set up by the Civil Aviation Act, 1946, advised the Minister whether permission for these services could be given without materially diverting traffic from existing services. Under the Civil Aviation (Licensing) Act, 1960, an Air Transport Licensing Board was set up in place of the ATAC, and from 30th March, 1961, the independent operators became entitled to apply for permission to operate scheduled services on an equal basis with the corporations.

The Air Transport Licensing Board (ATLB)

The ATLB consists of six to ten members appointed by the Minister of Aviation. The Board is responsible for granting licences to both the corporations and the independent operators for the operation of air services. In granting licences the Board takes into account an operator's experience, financial resources, equipment, organisation and staffing arrangements, and the adequacy of existing services. There is provision for appeals to the Minister from decisions of the Board. During the first year the Board received about 2,000 applications for licences for air services of various kinds, including charters and holiday tours.

The Corporations: Powers and Constitutions

The existing powers and constitutions of BOAC and BEA are laid down by the Air Corporations Acts, 1949 to 1960 (though the Corporations' monopoly of scheduled services was repealed by the 1960 Civil Aviation (Licensing) Act, as noted above).

Each corporation consists of a chairman, deputy-chairman and from 5 to 11 members, all of whom are appointed by the Minister of Aviation. In the case of BOAC, the Minister may, if he wishes, appoint two deputy-chairmen.

Finance. Each corporation may, with Treasury consent, borrow either by raising temporary loans or by issuing stock carrying a Treasury guarantee. In addition, the Finance Act, 1956, permitted the corporations to raise money by means of interest-bearing redeemable loans from the Exchequer, and these powers have been renewed each year under the annual Finance Act. This procedure of Exchequer advances has accordingly replaced stock issues as the means of providing permanent capital. Under the Air Corporations Act, 1960, the borrowing powers of BOAC and BEA were raised to £180 million and £95 million respectively.

Ministerial Control. Although the Minister of Aviation has certain statutory powers of direction over the corporations, including power to give general directions as to the exercise of their functions on matters affecting the national interest, these powers are very seldom used. The corporations function as commercial undertakings with autonomy in matters of day-to-day management. However, as their activities may have an impact on matters of national policy or international relations, and as the Minister is responsible for answering for the corporations in Parliament, there is in practice close co-operation, consultation and exchange of information between them and the Ministry. It is also the practice of the corporations to seek the approval of the Minister and the Treasury for orders of aircraft, which account for the bulk of their capital expenditure, and for investments in foreign airlines, which commonly involve foreign currency and may have political implications. Under the 1949 Act the corporations are also required to render annual reports of their activities, and statements of account, and the Minister lays these before Parliament.

Growth of Air Services

A selection of operating and financial statistics for the two corporations (including their associates) and the independent companies is shown in Table 24. Total capacity ton-miles offered on all services more than doubled between March 1956 and March 1961 and a further increase took place in the following twelve months. In 1961, 15 per cent of the total passenger-miles flown in the commercial aircraft of 90 nations were flown in British planes, which also carried 14 per cent of the total freight and mail ton-miles. In 1960, 6.6 million passengers entered or left the United Kingdom by air, compared with 7.1 million who arrived or departed by sea; in 1961 the corresponding figures were 7 million by air and 7.1 million by sea. The recent performances and developments of the corporations and companies are summarised below.

British Overseas Airways Corporation (BOAC)

BOAC operates scheduled services to all parts of the world: to Europe, the Middle East, the Far East, Australia, Africa, North America, the Caribbean and South America. It also operates a complete round the world service. Partnership with Commonwealth airlines has been a feature of British civil aviation since 1934, when Qantas and Imperial Airways first co-operated on the Australian route, and BOAC now operates a number of services in close association with other airlines. In addition, BOAC has a financial interest in airlines operating in the southern Red Sea area, the Caribbean and the Arabian Gulf, and is associated either financially or through advisory or other agreements with local airlines providing services in less developed areas adjacent to BOAC's main routes.

TABLE 24

AIRLINE CORPORATIONS AND INDEPENDENT COMPANIES:
OPERATING AND REVENUE STATISTICS

	Year ending 31st March	Capacity ton- miles offered (a) <i>millions</i>	Load ton- miles sold (b) <i>millions</i>	Overall revenue load factor (c) <i>per cent</i>	Pass- enger- miles sold (d) <i>millions</i>	Freight ton- miles sold (e) <i>millions</i>	Traffic revenue <i>£ million</i>
BOAC	1956	252	—	—	1,049	—	42.4
All services	1961	667	—	—	2,818	—	88.0
	1962	887	—	—	3,165	—	92.8
Scheduled services	1956	244	150	61.3	999	30.2	41.4
	1961	577	317	55.5	2,463	46.8	79.5
	1962	765	351	45.8	2,656	59.3	82.1
BEA	1956	124	79	63.2	709	7.5	20.9
All services	1961	237	155	65.2	1,393	16.6	40.7
	1962	282	169	59.9	1,550	16.4	44.5
International services (scheduled and non-scheduled)	1956	93	59	63.3	508	6.7	—
	1961	178	115	64.8	990	13.7	—
	1962	208	121	58.5	1,063	13.5	—
Domestic services (scheduled and non-scheduled)	1956	31	20	63.0	201	0.8	—
	1961	60	40	66.5	404	2.8	—
	1962	74	48	63.8	487	2.9	—
INDEPENDENT COMPANIES	1956	32	18	55.5	88	9.4	n.a.
International scheduled services	1961	52	34	64.9	184	16.5	n.a.
	1962	64	38	59.2	224	17.4	n.a.
Domestic scheduled services	1956	5	3	59.9	36	0.2	n.a.
	1961	14	8	59.4	93	0.3	n.a.
	1962	20	12	62.3	135	0.6	n.a.
Inclusive tours (f)	1956	3	2	79.2	28	—	n.a.
	1961	14	12	84.5	136	—	n.a.
Charter and contract services	1956	118	89	75.6	650	30.0	n.a.
	1961	155	118	76.1	740	51.2	n.a.

Sources: Annual Reports of BOAC, BEA and British Independent Air Transport Association; Ministry of Aviation.

(a) Usable capacity available (in short tons of 2,000 lb.) on each commercial flight multiplied by the route mileage of that flight.

(b) Load carried (in short tons), including passengers, multiplied by distance carried in miles.

(c) Load ton-miles sold, expressed as percentage of capacity ton-miles offered.

(d) Sum of miles flown by each passenger.

(e) Excluding mail.

(f) Inclusive tours statistics for 1961-62 are now included with those for charter and contract services, which were not available at the time of going to press.

n.a. = not available.

In June 1962 BOAC and the Cunard Steamship Company jointly formed a new company, to be called BOAC-Cunard Limited, with an initial share capital of £30 million, of which BOAC contributed 70 per cent and the Cunard Company 30 per cent. Services in a large part of the Western Hemisphere for which BOAC and Cunard Eagle held route licences will be operated on behalf of the new company. These include services between Britain and the United States eastern seaboard and mid-west, Bermuda, the Bahamas and the Caribbean, together with the extension of these services to parts of northern and western South America.

Operations. Table 24 shows that the capacity offered on its own scheduled services by BOAC rose between March 1956 and March 1962 by 313 per cent to 765 million capacity ton-miles. At the beginning of the period traffic was carried entirely in piston-engined aircraft, but in the year ending in March 1962 nearly three-quarters was carried in pure jet aircraft. Over a third was carried in *Boeing 707s*, which were brought into service in 1960. Over the six-year period, passenger-miles sold on scheduled services rose by 266 per cent. During that period the load factor fell from 61 to 46 per cent. This was due mainly to the introduction of larger aircraft over the whole period.

BOAC was the third largest international freight carrier in the world in 1960-61, and in respect of total load carried on international routes was second only to Pan American World Airways.

Financial Results. Owing to heavy investment in new aircraft in recent years and the losses of its associated companies, BOAC's annual accounts have shown deficits since 1957-58, despite the increasing revenue from its operations shown in Table 24. In 1961-62 interest on capital borrowed amounted to £6 million and the deficit of the associated and subsidiary companies amounted to £4.3 million. Adding the operating deficit of £10.5 million, the combined result is a deficit of £20.8 million.

Some £65 million of BOAC's gross revenue was earned in foreign currencies, which, after payment of local expenditure overseas, produced a net contribution to earnings of foreign currency amounting to £28 million.

British European Airways (BEA)

BEA operates a network of services serving 83 places in the United Kingdom, Europe, North Africa and the Persian Gulf. Its services in the United Kingdom include a number which cannot be operated on a commercial basis, but which meet a vital social need; these include services to the Highlands and Islands of Scotland. BEA maintains a close working relationship with BOAC, whose aircraft, by agreement, use a number of European stopping points. BEA also co-operates with other airlines in order to create 'through travel' facilities. It has a financial interest in a number of subsidiary and associated companies, the majority of which are aircraft operators and collaborate with BEA in providing a network of services.

Operations. The capacity ton-miles offered and load ton-miles sold by BEA more than doubled between March 1956 and March 1962 (see Table 24). The increases were almost equally divided between international and domestic services. Load factors, which had increased up to 1961, dropped to 60 per cent in 1961-62; but this was above the European average. Reasons for the previous increased load factor appear to have been reductions in fares, especially during winter months, the increasing use of air transport on international routes by passengers from outside London, and increased services and traffic on domestic routes. The proportionate increase in freight ton-miles sold on domestic routes by BEA (from 0.8 to 2.9 million) was

outstandingly high. On international routes this type of traffic doubled. In March 1956 BEA's fleet consisted of 28 *Viscounts* with propeller-turbine engines in service, three on hire, and 73 piston-engined aircraft. By March 1962 the number of *Viscounts* in service had increased to 62. In addition, there were 20 propeller-turbine engined *Vanguards*, 2 *Heralds* and 13 *Comet 4Bs* with jet engines and only 5 piston-engined aircraft in service. At the end of 1961 BEA introduced a new type of freighter capable of carrying 11 tons of freight, the *Argosy*, with a propeller-turbine engine. Three of these aircraft are now in service on European routes.

Financial Results. From 1954-55 to 1960-61 BEA earned a net profit after meeting interest charges. In 1961-62 the Corporation showed a net loss of £1,488,065, before bringing in reserves, because of the serious drop in load factor in 1961-62.

The Independent Airline Companies

In 1962 there were about 32 independent airline companies, many of them members of the British Independent Air Transport Association. Table 24 shows that the charter and contract services of these companies are extensive. Until 1961 the development of scheduled services by independent firms was controlled in the interest of the corporations (see p. 383) and scheduled services operated by these companies have been mainly in the operation of secondary routes and the provision of special types of services, such as vehicle ferry services from the United Kingdom to Europe, and all-freight services to Europe and Africa. They also operate inclusive holiday tour services. Since 1961, however, the independent companies and the corporations have been able to apply to the Air Transport Licensing Board for licences for the development of their networks of scheduled as well as other services (see p. 383).

Charter Services. Among the charter services provided by the independent companies, air-trooping is of great but proportionately declining importance. In 1955-56 military flights comprised 80 per cent, and in 1960-61, 70 per cent, of the passenger miles sold by these companies. Several firms specialise in other aerial activities, such as aerial survey and pest control.

Much charter business is arranged through the air section of the Baltic Exchange, the London market for shipping space (see p. 361). The Airbrokers' Association, formed in 1949, operates in London a world market for chartering aircraft to carry cargo and passengers.

United Kingdom Trade by Air

The proportion of United Kingdom foreign trade carried by aircraft is steadily increasing. In 1956, 1.7 per cent of imports and 2.9 per cent of exports (by value) were carried by air. During 1961 these percentages were 4.6 per cent and 6.1 per cent respectively, and the total value of exports, imports and re-exports by air was £460 million. The chief export items were expensive machinery and parts, aircraft and vehicle parts, and electrical and electronic products; furs and skins accounted for about a third of the total value of re-exports by air.

Private Flying

At the end of 1961 there were on the United Kingdom register some 470 active aircraft in the business and private-owner category, 335 used for instruction in light aviation, and 200 others, making a total of 1,005 privately owned aircraft. Private pilot licences were held by 6,300 people.

Aerodromes

The Minister of Aviation is authorised to establish and maintain civil aerodromes, and so may local authorities, subject to his approval; there are also privately owned aerodromes. All aerodromes not operated by the Government which are used for commercial operations are subject to the Minister's licensing, inspection and regulation.

There are approximately 120 civil aerodromes in the United Kingdom and, in addition, about 54 Service aerodromes are available for civil use. Those under civil control include 21 directly controlled by the Ministry, 3 in the Channel Islands and 1 in the Isle of Man administered by the local island governments, and 30 aerodromes licensed for public use, of which 21 are owned by municipalities. Customs facilities are provided at 9 of the Ministry's aerodromes and at 19 others.

The main airports used by international scheduled services in 1962 were:

for European services: London, Manchester (Ringway), Renfrew, and Birmingham (Elmdon);

for North Atlantic services: London, Manchester (Ringway), and Prestwick;
for Middle East, African and Far East services: London.

Aircraft and passenger movements at the principal aerodromes continue to increase. In 1961 all United Kingdom civil aerodromes handled 12.8 million passengers. Of this total, London (Heathrow) Airport dealt with 6.2 million, and London (Gatwick), 813,000. Outside the London area, Manchester (Ringway) handled 945,000; Glasgow (Renfrew), 761,000; Belfast (Nutt's Corner), 515,000; and Southend 488,000. The three airports in the Channel Islands together handled 1.1 million passengers. The number of movements of aircraft engaged on commercial transport operations in 1961 was 447,000 for all United Kingdom aerodromes.

Development. London (Heathrow) Airport, already the largest and busiest airport in Western Europe, will be strained to capacity within the next few years owing both to the increasing number of passengers and to the increased size of the new jet aircraft that many international airlines are bringing into service. The recommendations of a special committee, set up in 1957, to consider the future of London Airport have been accepted by the Government as the framework of the airport's development. Domestic and European short-haul services are handled at the passenger building in the central terminal opened in 1955. An additional building for short-haul services is planned. For long-distance passengers a £3 million terminal was completed in 1962. The airport at Gatwick, 25 miles south of London, was opened in June 1958 as the second airport for the London area and considerable further development of the airport will be undertaken in the next few years. The two airports are becoming increasingly interdependent. Built alongside the main London to Brighton railway, London (Gatwick) Airport is the first airport in the world to contain road, rail and air transport in one unit. A privately owned helicopter terminal (or 'heliport') was opened in London, on the south bank of the Thames, in April 1959.

Prestwick in Scotland, the second international airport in the United Kingdom, is being developed so that it can accommodate the new large jet aircraft. The runways at Ringway Airport, Manchester, have been lengthened and a new terminal building was due for completion in 1962.

Air Safety

The role of the Government in promoting air safety lies in research and supervision. Government research is mainly in aircraft design, navigational aids and air traffic

control. Every aspect of civil aircraft operation is supervised by the Government, which shares its responsibility for safety with manufacturers and designers of aircraft engines and equipment, airline operators, flight crews, ground staffs, air traffic controllers and others.

In major issues of safety policy the Government is advised by the Air Safety Board, which was established in 1946 and is a standing body of experts; it may make recommendations to the Minister or give advice on matters referred to it by him.

Aircraft Research. Research on aircraft design and construction is done at the Royal Aircraft Establishments at Farnborough and Bedford, which belong to the Ministry of Aviation and are exceptionally well equipped with testing facilities.

The Air Registration Board. All aircraft registered in the United Kingdom must have a valid certificate of airworthiness issued (or rendered valid) by the Ministry of Aviation on the recommendation of the Air Registration Board. This Board was set up in 1937 and consists of 18 members, four of whom are independent, the others being representatives of constructors, operators and insurers of aircraft. No aircraft built in Britain is granted a certificate of airworthiness unless it has been constructed in accordance with British Civil Airworthiness Requirements, a code compiled and frequently reviewed by the Board. Continued airworthiness is ensured by regular inspection and maintenance performed according to a schedule which has to be approved by the Board.

Firms engaged in the design and construction of aircraft must be approved by the Board, and the Board is associated from the start with all new developments in aviation, such as automatic landing.

Flight Crew Qualifications. Each member of a flight crew must hold the appropriate licence granted or rendered valid by the Minister. The requirement that pilots of public transport aircraft must hold licences issued by the Ministry of Aviation is to be extended to all pilots flying for remuneration. Operators are required to ensure that pilots employed by them have adequate knowledge of routes, and Ministry inspectors check the standards maintained by the operators, which must be adequate for purposes of the Air Operator's Certificate (see below).

Training. In order to replace the supply of well-trained pilots for civil airlines from the Royal Air Force, which has declined in recent years, the College of Air Training was set up at Hamble in 1960. It is sponsored and partly financed by the Government and the two Airways Corporations. As this college can supply only about half the pilots needed, the Government approves independent colleges, whose standards are adequate for the training of professional pilots. Besides the College of Air Training at Hamble, so far only Airwork Services Training, Perth, has been approved.

Air Operators' Certificates. Every operator of aircraft above a certain size used for public transport must, as required by the Civil Aviation (Licensing) Act, 1960, and the Air Navigation Order, of March 1961, possess an Air Operator's Certificate issued by the Director of Aviation Safety (who is appointed by the Minister of Aviation) when satisfied by inspectors that all safety precautions are constantly taken by the operator. In addition, the Air Registration Board maintains continuous supervision of operators' maintenance arrangements.

Air Traffic Control and Navigation Services

The Ministry of Aviation is responsible for providing efficient navigation and traffic control services for all civil aircraft flying over or near the United Kingdom. Meteorological information is provided by the Air Ministry. The Ministry of Aviation's Air

Traffic Control Service is responsible for the safe, orderly and expeditious movement of all air traffic using United Kingdom controlled airspace, airways, terminal areas and control zones.

In 1959 the Government established the Air Traffic Control Board, consisting of an independent chairman and representatives of the Ministry of Aviation, the Air Ministry and the Admiralty. The Board is supported in its work of co-ordination and in the formulation of air traffic control policy for the United Kingdom, by the Air Traffic Control Executive and the Air Traffic Control Joint Staff. The Board is responsible jointly to the Ministry of Aviation and the Secretary of State for Air.

Technical Provisions. In 1950 the then Ministry of Transport and Civil Aviation introduced a system of airways covering the main traffic routes with controlled zones around the major airports. During 1957 and 1958 a revised and extended airways system was brought into use. There are three main air traffic control centres, operated jointly by the Ministry of Aviation's Air Traffic Control Service and by the Royal Air Force, at London (Heathrow) Airport for southern England, at Preston for the north of England and Wales, and at Prestwick for Scotland and the Atlantic Ocean to 30° W. The Southern Air Traffic Control Centre, situated on the boundary of London (Heathrow) Airport, is one of the most advanced control centres in the world.

In order to provide the means by which the air traffic control system can accept the increasingly heavy load of air traffic, the Ministry has provided a variety of radar installations and equipment. The United Kingdom was the first country to use radar for the control of civil air traffic. The radar approach system known as Ground Controlled Approach (GCA) is now in use at all major airports in the United Kingdom, in addition to the Instrument Landing System (ILS). The United Kingdom Air Traffic Control Development Plan, designed to handle, expeditiously and with increased safety, the rapidly growing volume and speed of air traffic, includes the extension of radar surveillance to cover all controlled airspace (airways, terminal areas and control zones) and the progressive introduction of semi-automatic equipment in the new air traffic control centres, in which civil and military staff will work together.

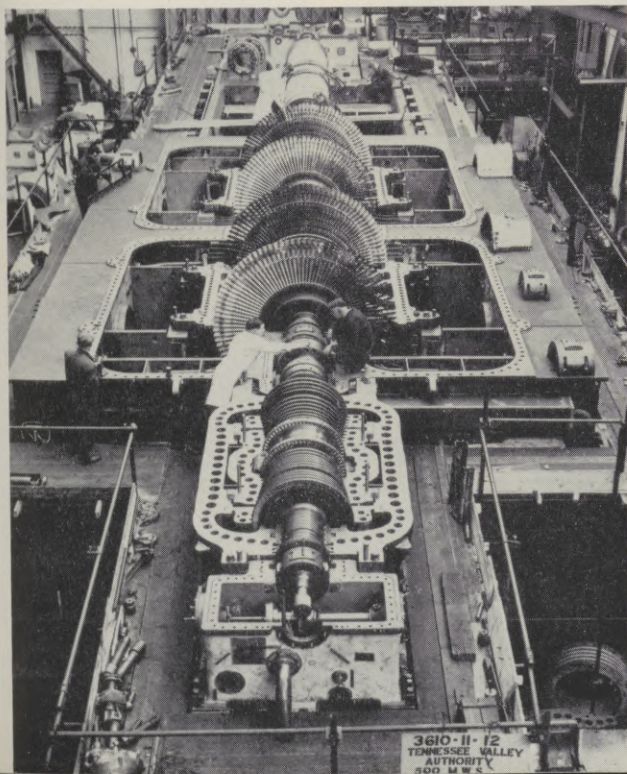
The Ministry has provided a number of radio navigational aids to help aircraft to remain safely within the controlled airspace and to make accurate estimates of their time of arrival. In addition, the Ministry supports the Decca Air and Marine Navigator System now operating over a wide area of the United Kingdom and northern Europe which can be used, by arrangement with the Decca Company, by any aircraft fitted with the appropriate receiving equipment. Research is in progress into new landing aids for use in bad weather. A unit of the Royal Aircraft Establishment, at Bedford, in co-operation with industry, has successfully developed a fully automatic landing system for the final stages of aircraft landing. The system is now coming into use with the Royal Air Force and, when it has been further developed to meet the requirements of civil operations, it offers the prospect of much greater safety in landing in both good and bad weather.

Radio stations maintained by the Ministry provide air to ground communications for the use of the Air Traffic Control Service. There is also a network of communications between ground stations in the United Kingdom and between United Kingdom and overseas ground stations.

Automation. For operational use at the new air traffic control centres a specification of a comprehensive flight plan processing and printing system is being prepared, following work at the Air Traffic Control Experimental Unit.

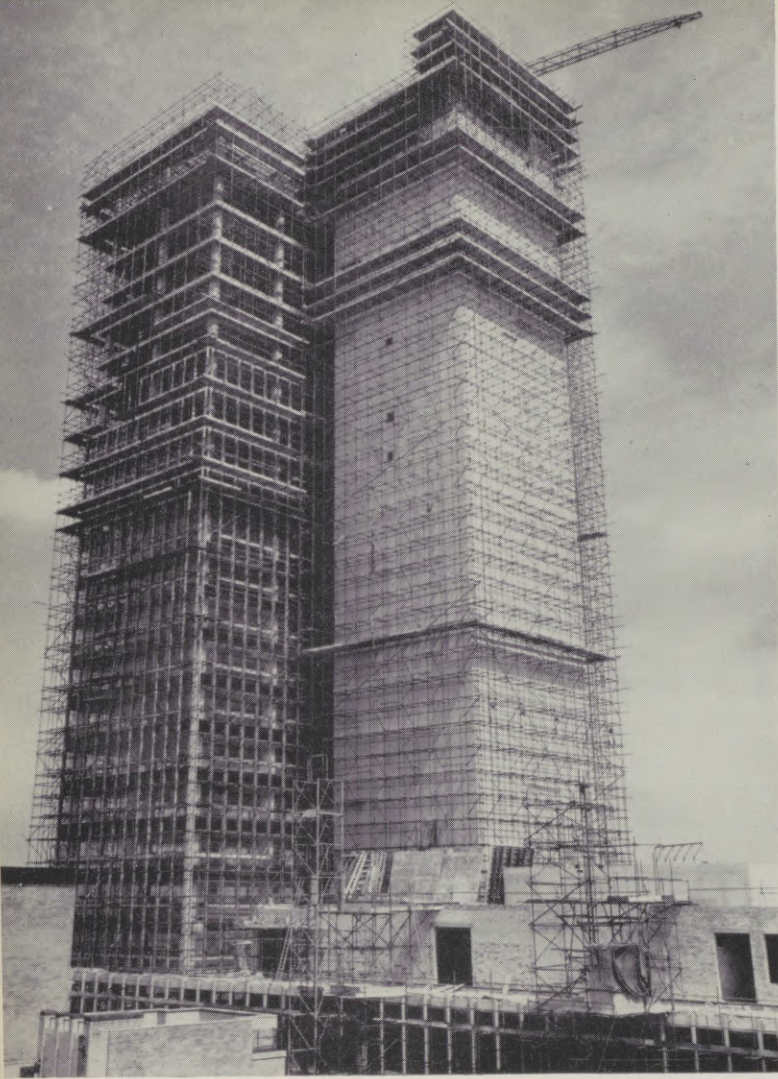


English Electric Company's 45,500 h.p. turbines at the Loch Sloy power station (North of Scotland Hydro-Electric Board).



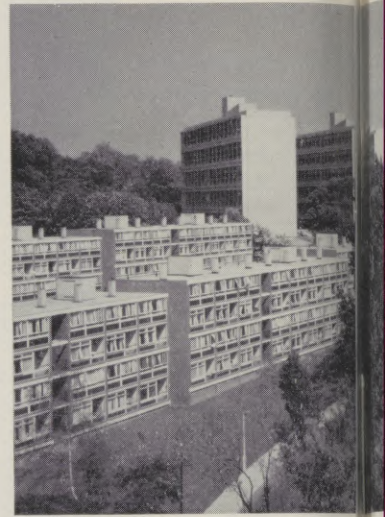
A 500,000 kW turbine under construction by C. A. Parsons and Co., Ltd., for the Tennessee Valley Authority.

3610-II-12
TENNESSEE VALLEY
AUTHORITY
500 MW



Offices of the Co-operative Wholesale Society, Manchester.

Doncaster-Sheffield Motorway at Warmsworth.



A London County Council housing estate.



Shell Group's new central office building.

Berkeley Nuclear Power Station (started operation in 1962).





ate (Alton West, Wandsworth).



Forth Road Bridge under construction.



London's South Bank.

n 1962).

Lex Company's
multi-storey
garage at Bristol.



Church
architecture in
a new town:
Parish Church of
St. George,
Stevenage.





The Post Office satellite communications ground station at Goonhilly Downs, Cornwall (see p. 217), by means of which the first experimental live transatlantic television pictures were exchanged between Britain and the United States *via* the US satellite *Telstar* in July 1962. The steerable aerial has an aperture diameter of 85 feet.

Two automatic systems will be used to study the application of computers to Air Traffic Control. The first known as Apollo, has already been installed at the Oceanic Centre, Prestwick, and is being used in a three-year programme of experimental work connected with the North Atlantic Air Traffic Control. The second, more complex, system is expected to be available in 1964.

THE POST OFFICE

The Post Office with its staff of some 366,000 is a Government department. It is also the oldest of Britain's State undertakings. In 1657, under the Protectorate of Cromwell, an Act of Parliament was passed which declared that 'there shall be one general post-office and one officer, styled the Postmaster General of England and Comptroller of the Post Office'.¹

Organisation

The ministerial head of the Post Office is the Postmaster General who, with the Assistant Postmaster General, is responsible to Parliament for his department. Six of the main divisions of work at headquarters are carried down into the organisation of three directorates—Scotland, Wales and Border Counties, and Northern Ireland—each under the control of a director of the Post Office, and, in England, seven regions, each under the control of a director; London has two directors, one for postal services and one for telecommunications. In the United Kingdom there are about 470 head post offices, nearly 25,000 subordinate post offices, and 57 telephone areas.

The Postmaster General normally presides over meetings of the Post Office Advisory Council, on which the principal users of the Post Office services are represented. In addition, there are about 190 local Post Office Advisory Committees which are formed on the initiative of, and are maintained by, local interests, and are not organs of the Post Office.

The work of the Post Office falls into two main categories: (1) direct services—mail services, telecommunications and remittance business; (2) agency services—savings services, broadcasting services and other business undertaken on behalf of Government departments.

Finance

Although a Government department, the Post Office is also an immense trading concern. The *Post Office Report and Accounts for 1961-62* showed that its income that year was £495.3 million and its expenditure £481.7 million, leaving a surplus of £13.6 million. The postal service earned a surplus of £1.0 million and the telegraph and telephone services earned a surplus of £12.6 million.

The Post Office Act, 1961, changed the status of the Post Office in order to give greater recognition to its commercial character. While it remains a Government department, its finances have been separated from the Exchequer and a separate Post Office Fund has been established which is managed by the Postmaster General, and into which all Post Office receipts are paid and out of which all payments are made. Treasury control over the Post Office is confined to investment and foreign exchange, and the pay and conditions of Post Office staff, who are still civil servants. The Post Office is required, while maintaining its standard of services, to ensure that its income is enough, taking

¹ Charles II declared all Cromwellian Acts null and void at the Restoration, but his Parliament passed a similar Act in 1660.

one year with another, to pay its expenses. Parliament is still able to debate and ask questions about Post Office policy and management and to control Post Office charges and borrowing.

Mail Services

The development of postal communications in Britain can be traced from the time when horsemen carried dispatches to the Tudor Court up to modern airmail transport. There was a great expansion in the postal services in the eighteenth century with the introduction of mail-coaches in 1784. In the first half of the nineteenth century the Post Office was quick to take advantage of Britain's early lead in engineering and railway development, and the first dispatch of mails by train was made in 1830 between Liverpool and Manchester.

The inauguration of the penny post (the uniform charge for any inland distance being prepaid by means of postage stamps, which originated in Britain) in 1840¹ was followed by a rapid extension of the scope of the postal services. The registered post, ensuring additional safety for valuable mail, was introduced in 1841. The money order system, which had operated as a private venture from 1792 to 1838, was supplemented in 1881 by the issue of postal orders for fixed amounts. Letterboxes had been instituted in London in 1855 to facilitate the increased postal traffic, and in 1883 the parcel post was introduced. By the end of the nineteenth century a regular delivery of letters was assured to every house in Britain. In the twenty-three years from 1938-39 to 1961-62, the parcel post increased from 185 million items a year to 233 million, registered postal traffic from 62 million to 80 million and other postal correspondence from 8,240 million to 10,600 million. Every day the Post Office handles about 30 million letters and parcels. Each year the Post Office deals with an ever-increasing volume of Christmas mail; during the Christmas-New Year season 1961-62, more than 935 million letters and cards were posted.

Developments

Between 1919, when the Post Office inaugurated its own motor transport fleet, and 1962 the number of motor vehicles used in carrying mail or for engineering purposes rose from 48 to 40,000. For quick transmission of mails within the central area of London, the Post Office has for over 30 years operated an automatically controlled underground railway that runs for 6½ miles, connecting Paddington in the west with Whitechapel in the east, and serving six intermediate stations.

The Post Office Research Station at Dollis Hill, London, has developed an electronic letter-sorting machine (ELSIE). These machines are being used at busy centres, and at Norwich, where postal codes are being used experimentally in addresses on mail, all the sorting of small letters is mechanised. An experiment with a fully automatic sorting machine is being carried out at Luton. A parcel-sorting machine has been developed and installed at Leeds; new parcel offices being erected in London and Manchester are designed to accommodate similar units. Field experiments are being carried out with machines for separating letters and packets, and for automatic 'letter-facing' (ALF), i.e. stacking letters with all the stamps in the same corner.

Airmail Services

Railways and motor vans as means of transport for mail are supplemented by ships and aeroplanes. Each year about 4,000 tons of mail are carried by air within the United Kingdom. Special night air services for mail are run between Great

¹ The minimum postage rate for inland letters is now 3d. for one ounce.

Britain and Northern Ireland and the Irish Republic. In the year ended March 1962 total overseas correspondence amounted to 476 million items, 59 per cent of which travelled by air. First-class mail to all European countries is sent by air or by surface transport, whichever offers earlier delivery, without payment of any air surcharge. The Post Office dispatches over 40 tons of letter mail a week to European destinations by this 'all-up' service, mainly in aircraft of British European Airways, whose network of services enables many of the letters posted in London for Europe to be delivered the following day. The air parcel service now operates to all countries in Europe except Roumania, and about 14 tons of parcel mail are dispatched weekly to Europe by air.

First-class mail and second-class mail are dispatched by air to countries outside Europe upon payment of special airmail rates of postage. Light-weight air letters costing 6d. each are popular, and air parcel services are also available to over 150 countries outside Europe.

Telegraphs

All private telegraph systems in Britain were transferred to the control of the Postmaster General in 1870. Teleprinter-working for the transmission of inland telegrams was introduced generally in 1928 and conversion to the present automatic switching system was completed in mid-1954. It is now one of the most up-to-date systems in the world and gives direct connection between any of the 500 larger telegraph offices. The Post Office accepted 13.3 million inland telegrams in 1961-62.

Telex

The Telex Service combines the speed of the telephone and the authority of the printed word. Calls may be made between the rapidly increasing number of telex users in the United Kingdom (8,888 in May 1962) and also to some 200,000 subscribers spread throughout the world. To send a message, the subscriber types it on the keyboard of his teleprinter: it is then reproduced simultaneously on both the sending and receiving subscribers' installations.

The service is available day and night except for a few routes outside Europe. Messages may be transmitted to a subscriber even though his teleprinter is unattended, for attention when his office reopens. Use of the service is expanding rapidly and the Post Office is planning for a system of 40,000 United Kingdom subscribers by 1980.

For call charging purposes the United Kingdom is divided into 50 charging areas, each with its telex centre. All inland and most European telex calls are connected automatically by dialling. They are charged in 2d. units, the amount of time bought for 2d. ranging from 60 to 5 seconds according to the distance of the call.

Inland and overseas telegrams may be sent to the Post Office and to cable offices by telex. No charge is made for these calls and the telegrams are charged for at normal rates. Arrangements may also be made for incoming telegrams to be received by telex.

Telephones

When the Post Office bought the property of the National Telephone Company in 1912, it became the owner of almost the whole telephone service in the country. Local authorities wishing to operate their own telephone service were permitted to do so under licence from the Postmaster General, but the only municipal system now in existence is that provided by the Corporation of Hull. Local telephone service in the Channel Islands is provided, also under licence, by their Governments' telephone departments. The Hull and Channel Islands local systems, although operated independently of the Post Office system, are connected to the Post Office trunk network.

At the end of March 1962 there were 6,010 local telephone exchanges in the United Kingdom. There were some 8.62 million telephones, including 74,200 telephone call offices for public use. Over 84.9 per cent of the telephones are connected to automatic exchanges and it is planned that by 1970 all the exchanges will be automatically operated. Telephones are being connected at the rate of about 445,000 a year. A system of national telephone numbers is being introduced which makes it possible to dial trunk calls. Trunk dialling by subscribers began in Bristol in December 1958; the system will have been extended by March 1963 to approximately 500 exchanges, serving one-third of all subscribers, and by 1970 to 90 per cent of all telephones. The introduction of the new group routing and charging equipment (GRACE) brings the advantages of quicker service, automatic accounting and cheap long distance calls of short duration, and constitutes the most radical reform of the telephone service since the Post Office assumed national responsibility for it.

The number of trunk calls made has trebled since 1939; in the year ended 31st March, 1962, the Post Office handled a total of 475 million, of which nearly a quarter were at the cheap night rate, available from 6 p.m. to 6 a.m. and during the whole of Sundays. The number of local calls handled during the year ended 31st March, 1962, was 4,500 million, an increase of 5 per cent over the previous year.

A public radiotelephone service, introduced in 1959 and at present restricted to South Lancashire and parts of Cheshire, enables the users of vehicles fitted with suitable radio equipment to make calls to, or receive them from, any telephone in the United Kingdom network. Telephones transmitting messages through loudspeakers instead of through instruments held by hand were made available to the public in 1961.

There are several specialised services available by telephone, including the '999' emergency dialling service, enabling subscribers to be connected as quickly as possible, and free of charge, to the police, ambulance or fire brigade services; the automatic time service; and a telephone weather forecast service available in 13 centres. In London a telephone information service provides details in English, French, Spanish and German of important events being held in and around the capital on the day of the call and a similar service in English in Edinburgh and Glasgow exists during the summer months. In Birmingham there is a daily cooking recipe service. A test match cricket score service operates at 32 centres during the cricket season and a road weather service is provided in collaboration with the Automobile Association at nine centres from 1st October to 30th April each year.

For some years research has been done on the development of electronic exchange systems and the first electronic exchange in Europe to carry public telephone calls will be opened by the Post Office in 1963.

Private Telecommunications Services

There are 79,728 private circuit stations not connected with the public exchange networks. These circuits are rented for private use for telephone conversations, teleprinter connections, photo-telegraphy, television, music, or for the transmission of signals which represent data for computers or operate other devices.

Overseas Telecommunications

All the overseas telephone services from the United Kingdom have for a great many years been developed and operated by the Post Office. The overseas telegraph services, on the other hand, were shared until 1950 between the Post Office and Cable and Wireless Ltd. This company was brought into public ownership in 1947. The Post Office, which acquired the United Kingdom services, operates all overseas tele-

graph services from the United Kingdom, except those offered by foreign telegraph companies. Cable and Wireless Ltd. continues to operate its cable and wireless services in many colonial and foreign territories.

The overseas telegraph, telex and telephone services are operated from international centres in London.

Telegraphs. Telegraph services to overseas countries are operated from Electra House, Victoria Embankment, London. In the year ended 31st March, 1962, there were 22.7 million inward, outward and transit telegrams.

Telex. The International Telex Exchange provides a teleprinter service to 68 countries abroad. In 1961-62, 4.2 million inward, outward and transit calls were made. In mid-1961 facilities were introduced enabling telex customers to dial directly to many European countries.

Telephones. Telephone service to Europe is through the Continental Exchange, from which 1,022 direct telephone circuits give service to all countries except Albania. These circuits are also used to send and receive pictures, and special circuits are used for broadcast transmissions. In 1961-62, 3.4 million outgoing calls were made. Automatic dialling by operators to subscribers in certain European countries has been extended and will be further developed. Radio circuits which provide service with most countries outside Europe and with many of the larger liners at sea are controlled at the International Exchange.

Transoceanic Cables

In 1956 the first transatlantic telephone cable—also the first long-distance submarine cable in the world—was inaugurated. Another transatlantic cable was laid by the Post Office cable ship, H.M.T.S. *Monarch*, during 1961 between Scotland and Newfoundland. It was opened for service by the Queen in December of that year and provides the first link in the projected Commonwealth telephone cable. The second link, between Australia and New Zealand, started working in 1962 and the trans-Pacific link between Canada and New Zealand, which will cost about £26 million, will be laid by 1964. Extensions from Australia to New Guinea, Borneo, Hong Kong and Singapore are planned for 1966 and further extensions are possible.

Before the first transatlantic cable was opened in 1956 the weekly averages of radio calls between London and Canada and London and the United States were 530 and 2,320 respectively. By March 1962 these figures had increased to 3,300 and 8,700.

The two existing transatlantic cables provide 57 public telephone circuits from Britain to the United States and 23 to Canada. Other European countries lease a further 9 telephone circuits in the cables to obtain direct services with the United States and Canada. The cables also carry a number of telegraph channels.

A telephone cable between Scotland and Iceland, via the Faroe Islands, was opened early in 1962 and an extension of this, via Greenland to Newfoundland, is planned to be opened at the end of 1962. There is also to be a new cable between Britain and the United States which is expected to open in 1963 with capacity for 132 telephone circuits.

Present day techniques limit the number of telephone calls which can be carried by long-distance submarine cables to about 100. A cable which can carry 250 circuits is now at the design stage.

Satellite Communications

Research on the use for long-distance communications of satellites, with a probable capacity of 1,000 circuits, is being done in co-operation with the United States and in

consultation with Commonwealth countries. The Post Office has set up on Goonhilly Downs in Cornwall, at a cost of £0.75 million, an experimental satellite communications ground station to transmit telecommunications to, and receive signals from, the United States through an artificial earth satellite, *Telstar* (see p. 217). Later similar transmissions will be made using a second satellite—*Relay*.

Ship-to-Shore Radio Communications

In addition to the radio stations for overseas telecommunications, the Post Office has 11 coast radio stations in the United Kingdom. These stations provide radiotelegraph and radiotelephone communications with ships at sea at ranges of up to some 500 and 300 miles respectively. There is also the long-distance radiotelegraph station, Portishead-Radio, which communicates with ships in all parts of the world.

These coast stations play an important part in the services concerned with safety of life at sea. They keep continuous watch on the international radiotelegraph and radiotelephone frequencies for distress calls from ships or aircraft and take immediate action to obtain assistance for any vessel in distress. During 1961-62 the stations handled 807 urgent and SOS calls from ships and aircraft.

In addition to the services for safety of life at sea, the stations exchange radiotelegrams with ships and connect radiotelephone calls between telephone subscribers ashore and suitably equipped ships; they also broadcast navigational warnings and weather bulletins.

The stations also operate a free medical advice service whereby the Master of a ship of any nationality may obtain advice from appropriate medical authorities on the treatment to be given in cases of sickness or injury aboard ship. During 1961-62 the stations dealt with 180 medical inquiries in this service.

The Post Office Counter: Agency and Direct Services

At the post office counter the citizen can draw his pension and his family allowance, buy a licence for his gun, dog, sound radio or television receiving set, renew his car licence and buy national insurance stamps and premium savings bonds. In these and many similar transactions the Post Office acts as agent for other Government departments or local authorities. Largely as a result of the extension of social legislation and the widening scope of the social services, the volume of work at post office counters has increased greatly compared with the total for 1938-39. In the twenty-three years to 1961-62, the value of transactions with the public increased from just over £1,000 million to £6,300 million. In 1961-62 the Post Office paid out £1,085 million in benefits under the National Insurance Scheme, and sold £161 million worth of savings stamps and National Savings Certificates and £52 million worth of premium savings bonds.¹

Counter sales include also an increasing volume of direct Post Office business: during the year ended 31st March, 1962, about 660 million postal orders were issued by post offices. The work of the Post Office Savings Bank is described on p. 411.

¹ Post Office engineers were responsible for the development of ERNIE, the electronic random number indicating equipment used for selecting winning premium savings bond numbers.

FINANCE

A detailed description of the financial system of the United Kingdom may be found in the comprehensive report of the Committee on the Working of the Monetary System (*Cmnd.* 827), published in August 1959. This committee was set up by the Government in April 1957, under the chairmanship of Lord Radcliffe; the inquiry was the first of the kind since 1931.

PUBLIC FINANCE

Public finance is concerned with the way public authorities (i.e. the central Government and local authorities) finance their activities—how their expenditure is decided upon and how their revenue is obtained.

Money administered by public authorities¹ can be roughly divided into two categories:

1. The funds of the central Government, raised mainly by taxation, but also in part by borrowing, and paid into and out of the Exchequer² in accordance with the proposals of the Government, as approved by Parliament (principally the House of Commons).

There are also funds administered for special purposes by central Government departments and wholly or partially maintained by receipts which do not come from the Exchequer. The only important one is the National Insurance Fund, administered by the Minister of Pensions and National Insurance and used for the payment of benefits under the National Insurance Scheme.

2. The funds of local authorities, obtained partly from rates (local taxes on dwelling houses and other real estate) and income from property and trading receipts, partly from grants and loans from the Exchequer, and partly from loans raised in the open market (see p. 76).

The following broad account of Government finance is concerned mainly with the Exchequer and only incidentally with local government and other public funds.

Financial control, as exercised by the House of Commons, is based on law, parliamentary rights and custom.

As the power of Parliament grew in late medieval and Tudor times, the principle that taxation by the Crown required parliamentary consent was gradually evolved. The principle was established, at the end of the constitutional struggles of the Stuart period, by the Bill of Rights, 1689.

¹ For an account of public finance in Northern Ireland and its relationship to that of the United Kingdom, see pp. 407–8.

² The term 'Exchequer' took its name from the 'chess-board', or table with chequered cloth, round which the King's financial officials sat for accounting purposes in the twelfth century.

In medieval, Tudor and Stuart times, it is broadly true to say that once the King was granted the right to raise a given sum by taxation, he was free to spend it as he chose. In the eighteenth and nineteenth centuries, the House of Commons gradually developed the modern system of controlling expenditure through the device of Appropriation which was embodied in the Exchequer and Audit Departments Act, 1866.

From the very early days of Parliament it had been established that such financial control as Parliament possessed should be exercised by the House of Commons. This control became effective, as regards taxation, in the seventeenth century, but as regards expenditure it was not effective until the nineteenth century. The controlling power of the House of Commons is acknowledged today in the Speech from the Throne at the opening of a new session of Parliament, which is addressed to both Houses but contains a special paragraph addressed to the Commons alone.

The Commons have traditionally claimed that the Lords have no power to modify financial provisions, though they may reject such provisions; thus, to minimise the chance of rejection, the practice was started in 1861 of embodying the main financial provisions for the ensuing year in a single Bill. Since the passing of the Parliament Act, 1911, however, the assent of the House of Lords is no longer needed for a Bill certified by the Speaker to be a Money Bill (see p. 38).

Today, the authority of the House of Commons has to be obtained for all expenditure by the central Government itself and for the raising of revenue by taxation or borrowing. All Government revenue, other than sums received by Government departments in the course of their normal activities (known as appropriations-in-aid), is paid into the Government account with the Bank of England—known as the Exchequer Account or the Consolidated Fund. With certain exceptions (the main one, as previously stated, being National Insurance benefits), all payments by the Government come out of this account.

The following sections outline the machinery by which expenditure and revenue are authorised and controlled, the purposes on which public money is spent and the sources from which revenue is obtained.

ESTIMATES AND EXPENDITURE

Classification of Expenditure

Central Government expenditure falls into two main groups:

1. Expenditure which is specifically authorised by Acts of Parliament other than annual Appropriation Acts. This expenditure includes the loans made by the Government (shown 'below the line'¹ in the Exchequer accounts) to nationalised industries, local authorities and other public and private concerns for which the Treasury has specific statutory authority to borrow. It also includes the Consolidated Fund services, which are 'above the line' in the Exchequer accounts. These services, which represent a permanent charge on the Consolidated Fund, include the interest, sinking funds and cost of management of the National Debt, the financial provision made for members of the royal family, and salaries and pensions of judges and certain high officers whose independence of the Government is thought to be better guaranteed by permanent grant than by annual vote.
2. All other Government expenditure, which is authorised by annual Appropriation Acts and which includes all expenditure on defence, on the social

¹ See footnote on page 401.

services and on the general administration of the country. These are called Supply Services because the House of Commons, when voting money is, granting to the Crown 'such aids or supplies as are required to satisfy . . . the pecuniary necessities of the Government'. It should be noted that some of this expenditure may also depend on legislation, such as the National Health Service Acts, which relates to a specific object of expenditure.

Authorisation of Expenditure

The Estimates for these Supply Services are considered by the House of Commons in Committee of Supply (that is, in Committee of the whole House with the Chairman of Ways and Means, instead of the Speaker, in the Chair). The committee usually discusses public policy relevant to the Estimates, though any Estimate may be examined in detail if members wish and if time allows (see also p. 41).

Estimates for Supply Services in the financial year beginning on 1st April are submitted to the Treasury by each department in the preceding November and December. Estimated expenditure is grouped under main headings called 'Votes' which are further broken down into subheads and items. If the House of Commons approves the Estimates, the sums asked for are voted and later confirmed in the Appropriation Act; this Act appropriates the money to specific Votes. Within each Vote, a 'virement', the spending of money on one subhead instead of on another, is permissible so far as Parliament is concerned, but only with Treasury consent. The Service departments may spend money on one Vote instead of another, but only with Treasury sanction which, in turn, requires the retrospective authorisation of Parliament. Departments are free to distribute expenditure within subheads as they please subject to Treasury approval of the type of expenditure involved.

An insufficient Estimate, or a new service not covered by the Vote, or a virement of a magnitude or character which the Treasury considers should be brought to the attention of Parliament, requires a Supplementary Estimate. The Treasury exercises the same power of scrutiny over this as over the ordinary Estimates.

Scrutiny of Expenditure

Control of expenditure is maintained by the Treasury, by the Comptroller and Auditor General, and by the Public Accounts and Estimates Committees of the House of Commons.

The Treasury

The power of the Treasury to control expenditure derives from the responsibility of the Chancellor of the Exchequer for the financial policy of the Government.

A central function of the Treasury is to present the Civil Estimates to the House of Commons. In considering the Estimates submitted by departments, the Treasury has to look at the proposals for expenditure in relation to prospective national resources and to weigh the advantages of administrative proposals against the monetary and economic cost, taking into account current Government policy; to decide the relative merits of expenditure proposed by different departments; and to eliminate any overlapping, uneconomic or wasteful expenditure where this has escaped the net of departmental financial control. Quite apart from the scrutiny of Estimates, throughout the year the Treasury keeps a close control over such matters as rates of pay and the aggregate size of the staff in all Government departments, in addition to exercising a general supervision over all departmental expenditure. The Treasury also lays down general rules of financial and accounting procedure for departments and prescribes

the principles on which departmental contracts shall be made and the limits within which losses may be written off.

The Comptroller and Auditor General

Control over issues of money to departments and the audit of accounts is exercised by the Comptroller and Auditor General, who holds a permanent appointment with the status of an officer of the House of Commons. Since 1866 he has had two functions: as Comptroller of the Exchequer he controls receipts and issues of public money to and from the Exchequer Account; and as Auditor General he audits departmental accounts and submits his report on the Appropriation Accounts and other accounts, as required by statute, to Parliament. His statutory function is to ensure that all expenditure is properly incurred, e.g., that no payments are made which go beyond any relevant statutory authority, and that Treasury sanction has been obtained wherever necessary. In addition, however, he has been encouraged by successive Committees of Public Accounts (see the next paragraph) to examine departmental expenditure with a view to drawing attention to any cases of apparent waste or extravagance.

The Public Accounts Committee

The accounts of each department and the reports on the accounts made by the Comptroller and Auditor General are considered by a select committee called the Public Accounts Committee. This was first set up in 1861, on the motion of Mr. Gladstone, for the purpose of ensuring that expenditure was properly incurred in accordance with the purpose for which it was voted and with any relevant Acts of Parliament. The terms of reference of the committee are to examine the accounts and these terms have been widely interpreted by successive committees which have investigated whether full value has been obtained for the sums spent by departments and examined cases in which the administration appears to have been faulty or negligent. The committee has therefore become a powerful instrument for the exposure of waste and inefficiency. It embodies its findings in reports which may be debated in the House of Commons. Its recommendations are considered by the Treasury in consultation with departments and put into effect, so far as they are accepted, according to Treasury instructions. A reply to each report is submitted by the Treasury to the committee of the following session and where the recommendations have been unacceptable to the Treasury the committee may either accept the objections or return to the charge in subsequent reports.

The Estimates Committee

This committee was originally set up in 1912 and has been reappointed annually except during the war years. In 1960 it was made a select committee set up each session under standing orders. The committee's functions are to examine the Estimates, to report whether the policy implied in the Estimates can be carried out more economically, to examine the principal variations between the Estimates of the current year and those of the previous year and to suggest the form in which the Estimates should be presented. Usually, the committee selects each year a few Votes, or aspects of Government-voted services, for review.

Since 1945 the committee has functioned through the medium of four, later five, sub-committees, which carry out extensive investigations into the departments under consideration. In practice, the Estimates for the current year are not affected, but the committee's recommendations produce changes in future Estimates and strengthen Treasury control. In 1960 a further sub-committee was added to examine and report briefly on the spring supplementary estimates. The committee's functions have

been extended to examine the principal variations between the estimates presented and those of the previous year, and additional parliamentary time has been allocated for discussion of the reports of the committee and of the Public Accounts Committee.

THE BUDGET

'Budget' is an old word meaning a bag containing papers or accounts. The use of the word in public finance originated in the expression 'The Chancellor of the Exchequer opened his Budget', which was applied in Parliament to the annual speech of the Chancellor of the Exchequer explaining his proposals for balancing revenue and expenditure.

The Budget speech is the main occasion of the year for reviewing the financial state of the nation, and its formal basis is the Chancellor's proposals for raising money by taxation. By the time the Budget is introduced (usually in April) the Estimates of expenditure under various headings will have been presented to Parliament and published, and the expected total of Government expenditure for the year will be known. The Chancellor estimates the yield of the revenue on the basis of existing taxation and proposes such changes in taxation as will provide whatever surplus or deficit he considers desirable on economic grounds. These proposals are later embodied in detail in a Finance Bill. The gap between the Budget Statement and the Royal Assent to the Finance Bill (usually given in July) is covered by the Provisional Collection of Taxes Act, 1913, whereby changes in income tax and customs and excise duties¹ have immediate statutory effect if adopted by Resolution of the House of Commons.

The Budget speech also gives figures relating to certain payments of a capital nature for which the Government has statutory power to borrow and which are therefore excluded from the Budget expenditure met from revenue. These items and others are set out in the part of the Budget which lies 'below the line'.² Since 1961 a White Paper has been issued before the Budget giving details of below the line expenditure.

Budget Policy

The original purpose of the Budget was purely financial—to provide money for Government expenditure. From an early stage, however, it was appreciated that taxation would affect the distribution of income and property and the level of expenditure on particular goods and services. At a later period it was realised that taxation also affected the nation's total expenditure and therefore the general level of economic activity. Since the second world war, Budgets have been consciously designed in greater or lesser degree to bring the total demand for goods and services into balance with the supplies which could be made available.

Direct taxation on income and property affects the distribution of wealth because the rates vary according to the size of income and property, the proportion of a high income taken in tax being much greater than the proportion of a small one; at the same time, the services provided by the Government (whether in cash or kind) are generally available to all, irrespective of wealth, but in some cases they are specially designed to benefit people with lower incomes. Indirect taxes, or taxes on expenditure (see p. 403), do not affect the distribution of income; their main purpose has always

¹ In 1957 the Act was extended to include purchase tax.

² Items 'below the line' are: (1) receipts applicable by statute to debt interest which would otherwise be paid out of revenue; (2) receipts applicable to debt redemption; and (3) payments for which the Treasury has power to borrow.

been the raising of revenue, but by discouraging or encouraging consumption of particular goods that can be used to influence the allocation of resources and the pattern of trade.

The Budget affects the general level of expenditure and, therefore, the total demand for goods and services, in the following way: if there is an increase in Government expenditure without an increase in taxation then total demand for goods and services will tend to rise; the same thing will happen if there is a decrease in taxation without a decrease in Government spending. In this way the Budget can be used to counter unemployment. On the other hand, if there is an increase in taxation without an increase in Government expenditure or a decrease in Government expenditure without a decrease in taxation then the total demand for goods and services will tend to fall. In this way the Budget can be used to counter inflation. Growing emphasis is being placed on long-term programmes of public expenditure and on regular surveys over a period of years taking into account prospective resources.

For some years after the war, budgetary policy was mainly designed to counter inflation by holding down consumer demand for goods and services so that it would not hamper exports, investment or the defence programme. Budgets were aimed particularly at encouraging higher investment and production. The Supplementary Budget of October 1955, and the succeeding Budget, had the object of curtailing excessive internal demand and of strengthening the balance of payments. After some reductions in taxation in 1957 and 1958, the aim of the Budget of April 1959, which provided for further important reductions in taxation, was to give a further stimulus to economic activity. The 1960 Budget was designed to consolidate and fortify the progress of the economy, and that of 1961 to counter inflation and encourage exports. The 1962 Budget's aim was to keep the economic position in balance.

Sources of Revenue

Money to meet 'Ordinary' (mainly current) Budget expenditure of the central Government is in normal years derived from taxation. Taxes can be divided into two groups, direct and indirect, which correspond roughly to the duties collected by the Board of Inland Revenue and by the Board of Customs and Excise. The most important inland revenue duties—*income tax* (including surtax), *profits tax* and *estate duty* (death duty)—are levied directly on the income or property of those who, in general, have to bear them. *Income tax* on individual (though not on corporate) incomes and *estate duty* are progressive taxes, that is, larger incomes and estates bear a proportionately higher rate of tax. *Stamp duties*, although not a direct tax, are also collected by the Board of Inland Revenue. Taxes on motor vehicles are collected by the principal local taxation authorities, which are the county or county borough councils in England and Wales and the corresponding councils in Scotland; the proceeds are paid by the local authorities to the Exchequer.

Income Tax, Surtax, and Profits Tax

Income tax is imposed at a standard rate for the year of assessment beginning on 6th April. The standard rate for the year 1962-63 is 7s. 9d. in the £ (38.75 per cent). The tax imposed on an individual is graduated by means of personal allowances and reliefs, by reduced rates of tax on the first sections of taxable income,¹ and by the

¹ The balance of income remaining after deduction of the personal allowances and reliefs is taxable income. For 1962-63 the reduced rates are: 1s. 9d. in the £ on the first £60; 4s. 3d. in the £ on the next £150; and 6s. 3d. in the £ on the following £150. The remainder is charged at the standard rate.

surtax.¹ In the case of a married couple the incomes of husband and wife are aggregated and are treated as one income, but a higher personal allowance is given than for a single person. Earned income bears less tax than other income as certain fractional deductions ('earned income relief') are allowable.

A single person earning £700 a year pays £101 in income tax, while a married couple with the same earned income pays £67; if the couple have two children under the age of 11, their tax falls to £15; when the children are between the ages of 11 and 16, the tax is only £5; if the children are over 16 and receiving full-time education, no tax is paid at all. The range of tax payable by a single person varies from, for example, £49 on an earned income of £500 a year to £1,440 on an earned income of £5,000; if the income is unearned, tax liability on £500 will be £84, and on £5,000 will be £2,340.

Most wage and salary earners pay their income tax under a PAYE ('Pay-as-you-earn') scheme, under which tax is deducted at source, thus enabling them to keep up to date on tax payments.

Companies are liable at the standard rate of tax on their total income irrespective of its amount; they are also subject to profits tax, the rate of which was increased from 12½ per cent to 15 per cent from 1st April, 1961.

In general, income tax is charged on all income which originates in the United Kingdom and on all income arising abroad of persons (including companies) resident in the United Kingdom. The main exceptions are that interest on certain United Kingdom Government securities belonging to persons not ordinarily resident in the United Kingdom is exempt; income from certain classes of possessions abroad is chargeable not on the amount of income arising but on the amount of income remitted to the United Kingdom; and the trading income of specified overseas trade corporations² is not charged so long as it remains undistributed. The United Kingdom has entered into agreements with many countries providing for relief from double taxation; where such agreements are not in force, the United Kingdom allows unilateral relief.³

Estate Duty

Estate duty is chargeable on the value of property (whether legally settled or not) which passes or is deemed to pass at death. Thus, it is not limited to property owned by the deceased. It may, for example, extend to trust funds to the income of which the deceased was entitled during his lifetime, and to gifts made by the deceased within five years of his death (one year in the case of a gift for public or charitable purposes). Estates with a net capital value of £4,000 or less are exempt from duty, but on estates of a higher value there is a progressive duty ranging from 1 per cent to 80 per cent.

Indirect Taxes

Most indirect taxes, or taxes on expenditure, are customs and excise duties and are levied on commodities or services. They are called indirect because the importer,

¹ The surtax, which is essentially an income tax at higher rates, is charged on personal incomes exceeding £2,000 a year after deducting certain personal allowances in excess of the single person's basic allowance. In addition, the same earned income relief as for income tax and a special earnings allowance (not exceeding £2,000) are deductible from earned income only. Surtax is imposed at rates which increase progressively until (for 1962-63) on investment income above £15,000 a year, income tax and surtax combined amount to 17s. 9d. in the £.

² Broadly speaking, these are companies, which, though managed and controlled in the United Kingdom, carry on all their trading activities overseas.

³ The information in this paragraph is not legally authoritative. For this purpose reference should be made to the relevant Statutory Instruments. Inquiries in the United Kingdom should be addressed to the Secretary, Board of Inland Revenue, Somerset House, London, W.C.2.

THE UNITED KINGDOM BUDGET 1962-63

(based on April 1962 Budget estimates)

REVENUE

Receipts per £ from different sources

TAXES ON INCOME AND CAPITAL 10s. 8d.

Taxes on Personal Incomes

Income Tax and Surtax (including tax on dividends and interest), £2,397 million

7/1

Taxes Paid by Companies

Income Tax, Profits Tax, etc., £955 million

2/10

Death Duties £264 million

9d

TAXES ON SPENDING 8s. 9d.

Tobacco £885 million

2/7

Alcohol £464 million

1/4

Television and Betting £54 million

2d

Purchase Tax £606 million

1/9

Oil and Motor Duties

Oil (including petrol), £545 million
Motor, £150 million

2/1

Other

Stamp Duties, Import Duties (except on Alcohol, Tobacco, Oil), etc., £271 million

10d

NON-TAX REVENUE 7d.

Miscellaneous (including receipts from the servicing of certain loans, and broadcast licences), £206 million

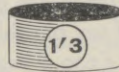
7d

TOTAL, £6,797 million £1. 0. 0

EXPENDITURE

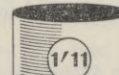
Outlay per £ on different items

SURPLUS 1s. 3d.

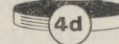


Surplus £433 million, helps to finance capital expenditure

CONSOLIDATED FUND SERVICES† 2s. 3d.

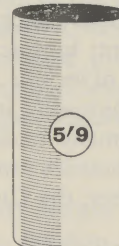


Interest on, and Management of, the National Debt
£841 million



Other £112 million

SUPPLY SERVICES‡ 16s. 6d.



Support of External Policy

Defence, £1,768 million
Civil operations overseas (including aid), £179 million



Economic Services

Industry and Transport (including road construction and maintenance, and railways subsidy), £372 million. Agriculture (mainly agricultural support subsidies), £306 million. Civil Science (including Atomic Energy), £113 million



Social & Community Services

General Grants to local authorities (used mainly for education services, local health and welfare services, fire services and some other social services), £579 million. Equalisation and Rate-deficiency grants to local authorities, £136 million. Other Local Services (including housing subsidies), £119 million. Central Education Services (grants to universities and colleges, and miscellaneous central grants), £137 million. Health (including National Health Service, Welfare foods and school meals and milk), £768 million. Personal Benefits and Assistance (including National Assistance, war pensions and family allowances and Government contributions to National Insurance Funds), £615 million. Other Services (Law and Order, and Arts), £117 million



Administration and Miscellaneous Charges

Civil Service, etc., £351 million

TOTAL (including surplus) £1. 0. 0 £6,797 million

†Consolidated Fund expenditures are those, such as salaries of judges, which are authorised under Acts of Parliament and which do not require annual Votes by Parliament.

‡Supply Services are those which are financed by annual Votes by Parliament.

manufacturer, wholesaler, or provider of commodities or services pays them first and then adjusts his prices to his customers accordingly.

Customs duties are levied on imported goods, and excise duties on goods produced, and services provided, at home. The purchase tax, which is also collected by the Board of Customs and Excise, applies equally, and at the same rate, to home-produced and to imported goods.

The system of customs duties is twofold in its purpose: it has the function of providing a measure of protection for British industries or preference for products imported from Commonwealth countries overseas and it has also the function, in association with the excise system, of providing revenue.

The principal revenue duties collected by the Board of Customs and Excise are those on tobacco, alcoholic drinks and hydrocarbon oil. There are a number of smaller revenue duties, for instance, on betting, matches, television licences and television advertisements. The protective customs duties cover a wider field, but their contribution to the yield of indirect taxation is relatively small.

Purchase tax is charged on a wide range of goods, nearly all of them consumer goods, at four rates, 10 per cent, 15 per cent, 25 per cent and 45 per cent of the wholesale value. Articles subject to revenue duties of customs and excise are in general exempt from this tax; other goods free of purchase tax include food (other than confectionery, soft drinks and ice cream), fuel, books and newspapers, young children's clothing and footwear, certain non-proprietary drugs and medicines, some household appliances and textiles. In the 1961 Finance Act, the Chancellor of the Exchequer was given power, which lapses annually, to vary by order the rate of purchase tax and of the main customs and excise duties on certain goods by up to 10 per cent in either direction. This power is intended to be a regulator of the economy and was renewed for the 1962-63 financial year.

THE EXCHEQUER ACCOUNTS 1962-63

In the Budget of April 1962, total current expenditure for the financial year ending 31st March, 1963, was estimated to reach £6,364 million, while the estimate for total current revenue (after allowing for taxation changes) was £6,797 million, making a surplus of £433 million. 'Below the line' total payments were estimated at £1,096 million, while total receipts were estimated at £589 million. After taking into account the surplus on current account there was an estimated deficit of £74 million to be met by borrowing.

Table 25 shows the Budget estimates for 1962-63 in comparison with the outturn (Exchequer receipts and issues) for the previous year and Table 26 gives a general functional analysis of the estimates. They were presented to Parliament in this form for the first time in 1962. The diagram on p. 404 illustrates the pattern of Government estimates of revenue and expenditure on current account in 1962-63.

CAPITAL PAYMENTS AND RECEIPTS

Capital expenditure dealt with in the part of the Budget statement which lies 'below the line' consists chiefly of loans to the nationalised industries. The remainder consists of loans to other public bodies, such as the New Towns Development Corporations, loans under the Export Guarantees Acts, and loans for overseas assistance. If, on balance, there is a deficit, it is met from the proceeds of Government borrowing or from the surplus, if any, in revenue and expenditure, i.e. 'above the line'; while if there were a surplus it would go to reduce the National Debt.

TABLE 25

ESTIMATES AND OUTTURN FOR 1961-62 AND ESTIMATES FOR 1962-63

After Budget changes

(£ million)

Revenue	1961-62		1962-63 Est.	Expenditure	1961-62		1962-63 Est.
	Budget Est.	Outturn			Budget Est.	Outturn	
ABOVE THE LINE							
Inland Revenue ..	3,598	3,645	3,711	Consolidated Fund Services	815	867	753
Customs and Excise	2,510*	2,595	2,730	Supply: Defence ..	1,642	1,675	1,721
Motor Duties ..	155	141	150	Civil ..	3,545	3,693	3,890
Total Tax Revenue ..	6,263	6,381	6,591	Total Supply ..	5,187	5,368	5,611
Other Revenue ..	245	264	206	TOTAL EXPENDITURE SURPLUS	6,002 506	6,235 410	6,364 433
TOTAL REVENUE	6,508	6,645	6,797		6,508	6,645	6,797
BELOW THE LINE							
TOTAL RECEIPTS	514	517	589	TOTAL PAYMENTS ..	1,089	1,138	1,096
NET PAYMENTS ..	575	621	507				
	1,089	1,138	1,096				
Surplus above the line					506	410	433
Net payments below the line					575	621	507
Borrowing requirement					69	211	74

Source: *Financial Statement 1962-63*.

* A revenue surcharge of 10 per cent on most Customs and Excise duties became operative on 26th July, 1961. It was estimated that this surcharge would produce an additional £130 million in 1961-62.

Apart from the use of surpluses, repayments and extra-budgetary funds such as the National Insurance Fund, Exchequer payments 'below the line' are financed by direct borrowing from the public either through the National Savings Movement (see p. 410) or by borrowing on the market by means of new issues of securities. New issues of Government securities are made from time to time for the purpose of refinancing maturing issues (conversion issues) or to raise new money (issues for cash). Since 1956, capital requirements of the nationalised industries have been met by the Exchequer, while most of those of the local authorities since 1955 have been met by direct borrowing from the public by mortgages or stock issues; net Exchequer lending (*via* the Local Loans Fund) to local authorities has steadily diminished since 1955 and in the last four years local authorities have, on balance, been repaying debt to the central Government.

The National Debt

So far, borrowing on a large scale has been undertaken only to finance deficits during or immediately after a war. The National Debt rose from £651 million in

TABLE 26

GENERAL FUNCTIONAL ANALYSIS OF THE ESTIMATES 1960-61 TO 1962-63

SUMMARY

	1960-61 Outturn		1961-62 Budget Estimates		1961-62 Total Estimates		1962-63 Estimates	
	As in Appropriation Accounts		As in Financial Statement		Including Revised and Supple- mentaries		As presented to Parliament	
	£m.	% of total	£m.	% of total	£m.	% of total	£m.	% of total
Support of External Policy:								
Defence	1,609	32.3	1,669	32.2	1,710	31.5	1,768	31.5
Civil operations overseas ..	154	3.1	170	3.3	187	3.5	179	3.2
Economic Services:								
Industry and transport ..	265	5.3	303	5.8	356	6.6	372	6.6
Agriculture	293	5.9	300	5.8	382	7.0	366	6.5
Civil science	120	2.4	119	2.3	119	2.1	113	2.0
Social and Community Services:								
General and rate deficiency grants to local authorities ..	605	12.1	633	12.2	649	11.9	715	12.7
Central education services ..	94	1.9	117	2.3	124	2.3	137	2.5
Health and welfare	720	14.5	698	13.5	718	13.2	768	13.7
Other local services	111	2.2	113	2.2	114	2.1	110	2.0
Law and order	90	1.8	103	2.0	103	1.9	109	1.9
Arts	7	0.1	8	0.1	8	0.1	8	0.1
Benefits and assistance	590	11.8	613	11.8	613	11.3	615	11.0
Administration, &c.:								
Central administration	293	5.9	298	5.7	309	5.7	308	5.5
Miscellaneous services	35	0.7	43	0.8	43	0.8	44	0.8
Supply Services	4,986	100	5,187	100	5,435	100	5,612	100

Source: *Memorandum by the Financial Secretary to the Treasury*

1914 to £7,435 million at the end of the first world war, and from £7,131 million in 1939 to £23,637 million in 1946. On the 31st March, 1962, the total National Debt was £28,669 million, of which £1,923 million was repayable in currencies other than sterling, mainly to the United States and Canadian Governments. Of the £26,746 million of internal debt, £5,591 million was short-term debt, mainly in the form of 91-day Treasury bills, while the long-term loans included a variety of stocks, bonds, loans, and certificates carrying fixed rates of interest (ranging from 2½ to 6 per cent) and with fixed or indeterminate dates of repayment.

PUBLIC FINANCE IN NORTHERN IRELAND

The general system of public finance in Northern Ireland is, in its main features, similar to that operating in the United Kingdom as a whole, under which public revenues, with a few minor exceptions, are paid into the Exchequer, from which no money can be withdrawn except on the authority of Parliament. That authority is expressed in the case of Consolidated Fund charges in permanent legislative form,

and in the case of Supply Services by annual Appropriation Acts based on estimates prepared by departments and sanctioned by the Ministry of Finance.

The major portion of taxation (customs duties and most excise duties, purchase tax, income tax, surtax and profits tax) is imposed by the United Kingdom Parliament over the whole country, and is paid, in the first instance, into the United Kingdom Exchequer. From the amount attributable to Northern Ireland, known as 'Reserved' Revenue, there is deducted and retained by the United Kingdom Treasury, under the Government of Ireland Act, 1920, the sum contributed by Northern Ireland towards Imperial Services (called the 'Imperial Contribution'), the cost of the administration of the Supreme Court, and other Reserved Services, and the cost of collecting Reserved Revenue. The balance, termed the 'Residuary Share of Reserved Taxes' is paid over to the Exchequer of Northern Ireland and joins with the proceeds of taxes levied and collected by the Government of Northern Ireland, called 'Transferred' Taxes, and with other non-tax receipts of a miscellaneous nature, to form the public income. The items of Transferred Tax Revenue are estate duties, stamp duties, pool betting duty, bookmakers' licence duties, television advertisement duty, television licence duty, most excise licence duties and motor vehicle duties.

A Joint Exchequer Board, representative of the Treasury and the Ministry of Finance for Northern Ireland, constituted in accordance with the Government of Ireland Act, 1920, determines the amount of Reserved Revenue and the cost of Reserved Services attributable to Northern Ireland for each year, the amount of the Imperial Contribution and such other questions affecting the financial relations of the two Governments as may be referred to it.

In the Northern Ireland Budget for 1962-63 (year ending 31st March), total revenues were forecast at £126.94 million and expenditure at £119.39 million. After allowing for the Imperial Contribution, provisionally estimated at £7.5 million, there was a small Budget surplus of £53,200.

The Public Debt of Northern Ireland, totalling £100.5 million on 31st March, 1962, is fully covered by repayable advances and investments held by the Ministry of Finance.

Outside the Exchequer system in Northern Ireland, various funds have been established, in addition to statutory Reserve and Sinking Funds, for specific purposes. In general, these funds follow the United Kingdom pattern, the principal funds being those relating to National Insurance and Government loans. The latter constitutes a pool of capital money available for local and public authority borrowings; on 31st March, 1962, a sum of approximately £93 million was outstanding against such authorities.

BANKING AND PRIVATE FINANCE

The British banking system is long established and well integrated. It comprises a central bank; commercial banks which carry on the usual main banking services; the United Kingdom offices of various banks whose main business is in other countries; and various specialised banks and similar financial institutions.

The Bank of England

The Bank of England is the central bank and its principal business is to act as banker to the Government and to the other banks, as the agent of the Government for important financial operations and as the central note-issuing authority; it also maintains relations with central banks overseas. It was established in 1694 by Act

of Parliament and Royal Charter as a corporate body, and its entire capital stock was acquired by the Government under the Bank of England Act, 1946.

As the central bank, the Bank of England is responsible for co-ordinating the application of the Government's monetary policy. One of the main instruments for this purpose is the Bank Rate—the minimum rate at which the Bank of England will discount approved bills of exchange and a key factor in the general pattern of interest rates.

As banker to the Government, the Bank of England holds the main Government accounts and it acts as the Government's agent for the issue and registration of Government loans. It also operates, for the Treasury, the administration of exchange control which has been in force since 1939.

The commercial banks maintain large balances with the Bank of England and these balances form part of the banks' cash reserves. In addition, under an agreement made with the London clearing banks and Scottish banks in 1958, the Bank of England may call on these banks for 'special deposits' which, not being freely disposable, do not rank as part of their liquid assets. This scheme, designed to restrict the liquidity of the banking system should the need arise, was first put into operation in 1960, when, on two separate occasions, each of the banks was called upon to deposit a sum equivalent to 1 per cent ($\frac{1}{2}$ per cent for Scottish banks) of its total deposits. A further call for 1 per cent ($\frac{1}{2}$ per cent for Scottish banks) was made in July 1961; this was released at the end of May 1962.

The Bank of England has the sole right in England and Wales of issuing bank notes. Notes thus issued need a 100 per cent cover in gold and securities, together with a limited amount of coin, the part covered by securities and coin being the 'Fiduciary Issue', the level of which is subject to parliamentary control. In practice very little gold is now held by the Issue Department of the Bank of England, the bulk of the United Kingdom gold (and foreign exchange) reserves being in a separate Government fund, known as the Exchange Equalisation Account; this account was originally established in 1932 for the purpose of checking undue fluctuations in the exchange value of sterling, and is operated by the Bank of England as agent for the Treasury. The provision of coin for circulation is the responsibility of a Government department, the Royal Mint.

The Commercial Banks

The banks handling the major part of the domestic banking business in the United Kingdom are limited liability companies which, in the main, are subject to the ordinary law relating to such companies.

Some of the main features of the United Kingdom commercial banks are:

1. A relatively small number of banks control a large number of branches. United Kingdom members banking of the British Bankers' Association include 11 London clearing banks,¹ 5 banks in Scotland and 3 in Northern Ireland, and control some 13,000 branches and had total deposits of over £8,900 million at the end of 1961.
2. The volume of cheques handled is very large and, in spite of a stamp duty of 2d. on each cheque, many payments—and even relatively small payments—are made by cheque. The average daily value of cheques, drafts, bills and bankers' effects cleared in 1961 through the London and Provincial Clearing

¹ Three of these banks are members of the London clearing house but have headquarters outside London (at Liverpool and Manchester).

Houses was £801 million; and many cheques do not, for various reasons, pass through clearing houses. In addition, a growing volume of payments is effected through the credit transfer scheme introduced in 1960: the average daily value of the credit clearing through the London Clearing House in 1961 was £17 million.

3. It is the practice of the London clearing banks to maintain a ratio of about 8 per cent between cash reserves and total deposits (of which just over one-half are repayable on demand, the remainder being mainly deposits at interest and subject to notice).

The banks make advances to customers partly in the form of overdrafts and partly in the form of loans (with or without collateral security); in either case, the advance is normally for a short term only, unless renewed.

The ratio of London clearing bank advances to total deposits declined from about 43 per cent in 1938 to about 17 per cent at the end of the war, but gradually climbed back to settle down to a level of 26 to 30 per cent for a number of years from 1951. After the withdrawal in 1958 of official requests to the banks to restrict the level of their advances, the percentage again moved up, and by July 1961, when the banks were again asked to restrain their lending, was over 47 per cent. In May 1962 the ratio of advances to total deposits was nearly 45 per cent, still above the 1938 level.¹ The increase since 1958 was accompanied by innovations in bank lending practice, including the introduction of schemes for personal loans repayable by fixed monthly instalments over periods up to two years, and facilities for limited service accounts at low cost. Another development was the acquisition by many banks of share capital in hire purchase finance companies.

4. Certain banks in Scotland and Northern Ireland have retained limited rights to issue notes; these issues, apart from an amount specified by legislation for each bank, must be fully covered by Bank of England notes and by coin.

United Kingdom Offices of Banks Operating Mainly Overseas

The importance of London as a financial and trading centre and as the largest city of the British Commonwealth has encouraged many banks whose main business is in other Commonwealth countries and foreign countries to maintain London offices²; in some cases, indeed, the institutions concerned are United Kingdom companies and the London office is the head office. These London offices form part of the complex structure engaged in the financing of trade not only between the United Kingdom and other countries but also in goods which are shipped direct between other countries.

Savings Banks and the National Savings Movement

The function of Trustee Savings Banks and the Post Office Savings Bank is to provide readily available facilities for the investment of savings, particularly the small savings of persons with low incomes. Both these types of banks were already well established during the nineteenth century. The growth of their business was,

¹ About 33 per cent of the banks' deposits at this time were covered by cash and other highly liquid securities, while 15 per cent were covered by British Government and other long-term securities. It is an invariably accepted convention that at least 30 per cent of deposits should be covered by cash and other liquid securities.

² Twenty-nine overseas banks are members of the British Bankers' Association.

however, encouraged in the first world war when the War Savings Committee was set up under Government auspices to promote an official savings drive. A new type of long-term security for the small investor was inaugurated at that time. This was the National Savings Certificate, encashable at par at any time, with interest payable only on encashment, but free of income tax. From this war-time drive originated the present National Savings Movement, which encourages the widespread investment of savings in Trustee Savings Banks and the Post Office Savings Bank and in National Savings securities. The policy of the movement is determined by the National Savings Committee for England and Wales and similar committees for Scotland and Northern Ireland.¹ The committees are bodies of independent persons representing regional savings organisations and various national institutions connected with such matters as finance, industry and education. They are assisted by a salaried staff of civil servants. Voluntary local savings committees, often assisted or promoted by local authorities, co-ordinate the work of voluntary local savings groups.

There are now three National Savings securities: the National Savings Certificate, the Defence Bond and the Premium Savings Bond. Defence Bonds were introduced in 1939 and are repayable at par on notice; interest is payable half-yearly and is taxable. Premium Savings Bonds, which were first issued in 1956, after an initial period of three months and thereafter monthly, give investors a chance to win prizes ranging from £25 to £5,000 instead of receiving interest. At the end of August 1962, £366.5 million was invested in this form of savings.

Trustee Savings Banks are managed by boards of honorary trustees and managers, and two-thirds of the funds deposited with them are ordinary deposits which are withdrawable on demand or at short notice. These deposits are invested with the National Debt Commissioners, and the Government is responsible to the trustees for the repayment of the money so invested, with accrued interest, as and when required. In certain circumstances, Trustee Savings Banks also accept deposits of up to £3,000 for special investment. These deposits, which may receive a slightly higher rate of interest than ordinary deposits, are invested under the supervision of the National Debt Commissioners, but the Government is not responsible to the trustees for the repayment of these investments. There are about 1,400 Trustee Offices controlled by 80 independent banks and depositors number over 8 million. Deposits at the end of April 1962 totalled about £1,470 million, an increase of £94 million in twelve months.

The Post Office Savings Bank, which celebrated its centenary in 1961, is the largest organisation of its kind in the world. It has over 22 million active accounts; in December 1961 total balances, which carry a Government guarantee, amounted to £1,737 million, nearly £80 per depositor. Through a centralised system of accounting, a depositor can pay in money or make a withdrawal at any one of some 20,000 post offices throughout the country.

A person may have deposits in only one Trustee Savings Bank and his holding in the ordinary department is limited to £5,000. He may also hold up to £5,000 in the Post Office Savings Bank. The maximum amount of National Savings Certificates which may be held by any one person is £900 worth of the current (tenth) issue, in addition to holdings of previous issues, and £800 worth of Premium Savings Bonds. The limit on individual holdings of the current issue of Defence Bonds (5 per cent) is £5,000; this is in addition to holdings of previous issues. By April 1962 national

¹ The Northern Ireland Ministry of Finance is responsible for the administration of Ulster Savings, but the furtherance and organisation of the savings movement in Northern Ireland is the concern of a central voluntary committee, which is assisted by county and local committees and district groups, all of a voluntary nature.

savings had reached a record total of over £7,503 million, and covered one-quarter of the National Debt.

Co-operative Banks

The Co-operative Wholesale Society formed a deposit and loan department about the year 1870, and the right of a co-operative society to engage in banking was legally defined in the Industrial and Provident Societies Act of 1876. The primary purpose of the Co-operative Wholesale Society Bank was to serve the co-operative movement, whose financial centre it has become, but the bank has also come to include among its clients trade unions and other mutual societies, local authorities and individual depositors. The bank's headquarters are in Manchester. The Scottish Co-operative Wholesale Society has similarly engaged in banking since 1948, with headquarters in Glasgow.

OTHER FINANCIAL INSTITUTIONS

It has been the policy of the commercial banks to leave the provision of many special financial facilities to other financial institutions. These facilities, which are supplementary to the credit facilities of the banking system, are mainly provided through the Discount Market, Finance Corporations, hire-purchase finance companies, the Stock Exchange, Investment Trusts, Building Societies and the Insurance Market. The firms engaged in such activities are in the main highly specialised, e.g. discount houses, stockbrokers, insurers, insurance underwriters and brokers. Another type of financial institution, the merchant bank, has been of great importance in the finance of trade and commodity dealings and in the flotation of major issues of bonds, particularly for overseas concerns and governments.

The merchant banks helped to give London an international reputation as the main world centre for short-term and long-term borrowing. Long-term loans for development purposes floated on the London market earned for Britain a continuing flow of interest and attracted a steady flow of orders for British goods and products. Where short-term credit was required, much British trade and also a large proportion of trade between foreign countries was usually financed by bills of exchange, which were accepted as payable at maturity by the merchant banks (also known as accepting houses) and were traded on the discount market, thus providing an easy method of transferring debts and claims.

The Discount Market

The main business of the Discount Market consists of trading in and holding commercial bills of exchange, United Kingdom Government Treasury bills and other short-term securities. In recent years commercial bills have become a small proportion of the discount market's business, while dealings in short-term bonds and Treasury bills have increased considerably. Tenders for Treasury bills are invited by the Government each week and the firms which comprise the discount market acquire the bulk of their Treasury bills in this way. They finance the purchase of the bills and securities they hold, chiefly by loans from the banks; about half of these loans come from the London clearing banks, and most of the remainder from other United Kingdom and overseas banks. In the main these loans and deposits may be called in at any time.

The commercial banks do not, in the ordinary way, buy Treasury bills at the weekly tenders except on behalf of customers, but purchase, from the Discount Market, bills which have been taken up by the market and held until they become of a currency required by the banks.

The Bank of England acts as lender of last resort to the 12 members of the London Discount Market. The clearing banks do not borrow money directly from the Bank of England; if they need to add to their cash resources they call in part of their loans to the Discount Market. If, as a result, any particular discount house is unable to cover its needs for cash elsewhere, it is obliged to borrow from the Bank of England, normally at bank rate.

Finance Corporations

Two corporations, the Finance Corporation for Industry Limited and the Industrial and Commercial Finance Corporation Limited, were set up in 1945 to assist in dealing with the problems of post-war reconstruction and development. Although the Government displayed considerable interest in their formation, the corporations themselves are ordinary limited companies with no official representation on their boards and having no recourse to public funds. Another finance corporation, the Commonwealth Development Finance Company Limited, was established in 1953 to assist development projects in the Commonwealth. Among other financial corporations of note are the Agricultural Mortgage Corporation Limited, and the Scottish Agricultural Securities Corporation Limited.

Finance Corporation for Industry Limited

The FCI was formed to assist in the provision of capital (in amounts of £200,000 and upwards) for the re-equipment and development of major industries with a view to promoting efficiency and thereby assisting in the maintenance and increase of employment.

The FCI has an authorised and issued capital of £25 million and may borrow up to four times this amount, making a possible total of resources of £125 million. The share capital is held as follows: 40 per cent by insurance companies, 30 per cent by trust companies and 30 per cent by the Bank of England. At 31st March, 1962, the capital called and paid up was 2 per cent (£500,000); the Bank of England paid £5 million in advance of call in 1958-59. The liability of the shareholders in respect of the uncalled capital represents security to the banks providing loans for the corporation's working capital.

The enterprises assisted by the FCI are concerned with a variety of products, such as steel, oil, chemicals, shipping, diesel engines, and electrical components.

Industrial and Commercial Finance Corporation Limited

The ICFC has a smaller issued capital than that of the FCI and has as its main object the provision of credit and finance by means of loan capital and share capital for industrial and commercial concerns in Great Britain, particularly in cases where the existing facilities provided by banking institutions and the Stock Exchange are not readily or easily available.

The authorised and issued share capital of the ICFC is £15 million paid up in full and a line of credit of £13.5 million, both provided principally by the London clearing banks and the Scottish banks in proportion to their size, with a token participation by the Bank of England. In addition, a public debenture issue of £10 million was made in July 1959 and a further issue of £6 million in April 1961. The current resources of the ICFC, including reserves shown in the balance sheet, therefore total about £49 million.

The corporation's function is to provide finance in sums ranging between £5,000 and £200,000 for small and medium-sized concerns. It has over 650 customers and has established branches in several large provincial cities.

Commonwealth Development Finance Company Limited

The Commonwealth Development Finance Company was set up in 1953 as a new channel for the investment of private capital in Commonwealth development schemes. Its authorised share capital is £30 million, of which about 14½ million 'A' ordinary shares of £1 (2s. paid) are held by industrial, shipping, mining and banking interests in the United Kingdom, and 11¼ million 'B' ordinary shares of £1 (10s. paid) are held by the Bank of England and certain central banks in the Commonwealth. At the end of March 1962, its commitments amounted to the sterling equivalent of approximately £22 million.

Agricultural Mortgage Corporations

The primary function of the Agricultural Mortgage Corporation Ltd., established in 1928, is to grant long-term loans against first mortgages on agricultural lands and buildings in England and Wales. The share capital was subscribed by the Bank of England and other banks, but the funds are mainly derived from public issues of debentures, of which about £50 million was outstanding in March 1962.

The Scottish Agricultural Securities Corporation Limited was established in 1933 and fulfils broadly similar functions in Scotland. Its share capital is subscribed by three Scottish banks.

The Stock Exchanges

Although there are several Stock Exchanges in the United Kingdom, the London Stock Exchange is by far the most important and is one of the world's two foremost free markets in securities.

The Stock Exchanges provide a means by which a holder of quoted stocks or shares (all important securities are quoted) can, if he wishes, find a buyer for his securities; they are also a most important element in the raising of new capital by Government and commercial borrowers. Some 9,000 securities are quoted on the London Stock Exchange; at the end of March 1962 these had a total market value of £50,224 million, of which over three-fifths represented equity capital.

The Stock Exchanges do not fix dealing prices; the terms on which bargains are made between members reflect the interaction of supply of and demand for the securities concerned. All the Stock Exchanges operate under strict rules of conduct which they formulate themselves.

In recent years there has been a constantly rising demand for ordinary (equity) shares, partly in expectation that such shares will maintain their real value or grow in value in periods of rising prices. Insurance companies and pension funds now invest a larger proportion of their assets in these shares than formerly, and the Trustee Investments Act of 1961 permits trustees, under certain conditions, to invest up to half the funds they hold in trust in equity shares.

The ownership of Stock Exchange securities in the United Kingdom is much more widespread than formerly: it is estimated that there are about 3 million shareholders and that their shareholdings are widely distributed. The largest public company in Britain has over 300,000 shareholders and there are several others with over 25,000.

Investment Trusts and Unit Trusts

Through investment trusts and unit trusts, investors may spread their risks and obtain the benefit of skilled management.

The ordinary type of investment trust is constituted as a public company, registered under the Companies Acts with limited liability; its business is to invest its capital

in a range of stocks and shares. Like other companies, it may issue several types of stocks or shares and may retain part of its profits to build up reserves. Investment trusts grew to importance in the latter half of the nineteenth century and have been prominent in directing capital towards overseas investment.

Unit trusts are constituted by trust deed between a management company and a trustee company which holds the securities. Normally, the management company buys a block of stock exchange securities spread over several companies in certain sectors of the economy and re-sells them to the general public in the form of units or sub-units. The price at which the sub-units are sold includes a service charge which represents the remuneration of the managers of the trust. In deciding which securities to buy, the managers of unit trusts are limited to a choice from among the stocks listed in the Trust Deed.

Although the first unit trust appeared in London in 1868, it was not until about 1931 that unit trusts became important. By 1939 there were 98 trusts, with total assets estimated at £98 million. During the last few years unit trusts have grown considerably, and there are some 750,000 unit holders. By the end of 1961 the value of their assets was £237 million. Under the Prevention of Fraud (Investments) Act, 1958, unit trusts are subject to the supervision of the Board of Trade.

The Insurance Market

Although a certain amount of insurance is provided by Friendly Societies and Trade Unions, most insurance services in the United Kingdom are in the hands of either mutual or joint stock companies or Lloyd's underwriters.

Table 27 shows the distribution of business in terms of gross premium income in 1960, the latest year for which figures are available.

TABLE 27
INSURANCE COMPANIES—GROSS PREMIUM INCOME 1960 £ million

	Life (a)	Marine	Other general business	Total
Companies incorporated in the U.K.	734	85	838	1,657
Lloyd's underwriters	—	132	183	325
TOTAL	734	217	1,021	1,982

Source: Board of Trade.

(a) Including Industrial Life assurance, which is a type of life assurance in which the premiums are collected at frequent intervals of two months or less by house to house collection. It is conducted by both friendly societies (called collecting societies) and companies, the former accounting for a gross premium income of £41 million in 1960 and the latter for a further £161 million.

Insurance Companies

There are over 300 insurance companies incorporated in the United Kingdom but most of the business is in the hands of about 100 companies. Most United Kingdom insurers write several of the main classes of business although some specialise in one class, particularly in life assurance where about 40 companies write only that type of business. A few specialise in reinsurance.

In addition over 100 overseas companies carry on business (and even more companies are represented) in the United Kingdom, thus emphasising the international nature of the market. The natural centre of the market is in London, but some of the large companies have their administrative headquarters elsewhere.

In 1960 the total insurance funds of the British insurance companies and collecting societies amounted to £6,700 million; of this, £4,300 million was ordinary life funds, £1,400 million was industrial life funds and £1,000 million general non-life funds. With the growth of group pension schemes the rate of accumulation of life funds is increasing greatly.

There is no government control over the investment policy of insurance funds and these represent one of the most important sources of funds for investment in commerce and industry. More than a third of the total assets of British insurance companies are invested in equity shares and debentures, and this proportion is gradually increasing.

Lloyd's

Lloyd's is an incorporated society of underwriters in London. The name 'Lloyd's' is derived from Edward Lloyd's coffee house, established in the late seventeenth century, where merchants with maritime and other interests gathered to transact business. By the middle of the eighteenth century, Lloyd's coffee house had become the principal centre of underwriting business and of intelligence about shipping movements. Although in its earlier history the activities of Lloyd's were confined to the conduct of marine insurance business, during the last sixty years there has also been built up at Lloyd's a very considerable world-wide market for the transaction of other classes of insurance business, except life assurance of which the amount transacted at Lloyd's is negligible. In addition to its insurance activities, Lloyd's maintains a world-wide organisation of the collection and diffusion of shipping intelligence.

Lloyd's is now governed by a series of special Acts of Parliament starting in 1871; the affairs of the Society of Lloyd's in its corporate capacity are administered by the Committee of Lloyd's, which does not itself transact insurance business.

The interests of a holder of a Lloyd's policy are safeguarded in the following ways: (1) every Lloyd's underwriter is liable for his underwriting debts to the full extent of his means and is required to lodge security by way of a deposit with the Committee of Lloyd's; (2) the whole of the premiums received by an underwriter must be placed in a trust fund to be used exclusively for the payment of his underwriting liabilities and expenses, and only ascertained profits can be released to the underwriter and then only with the consent of the trustees; and (3) every underwriter must submit his accounts to an annual audit.

The usual practice of underwriters today is to form themselves into groups known as syndicates which generally specialise in particular branches of insurance. The underwriters forming the syndicate appoint an agent who is empowered to accept risks on their behalf and to control all matters concerned with the syndicate's business. If the insurance is for a relatively large amount, several syndicates may participate, but each underwriter is individually liable only for the proportion of the risk accepted on his behalf.

Underwriters may not accept business directly from the public, but must transact through Lloyd's brokers in London, who must be connected with Lloyd's, either as members or subscribers.

Insurance Brokers

The insurance market is completed by the insurance brokers, acting on behalf of the insured; brokers are an essential part of the Lloyd's market and a valuable part

of the company market. Many brokers specialise in reinsurance business, acting as intermediaries in the exchange of contracts between companies, both British and overseas, and often acting as London representatives of the latter.

International Insurance Services

Over two-thirds of the fire, accident and marine insurance business comes from abroad, partly by direct placing in London and partly from branches and agencies established in over 100 countries. The basic principle of this international business is that resources capable of meeting any potential loss are instantly available for use in any part of the world.

Behind this large and international volume of business stand the very substantial assets of the companies, in addition to substantial reserves of uncalled capital and the whole of the deposits, underwriting trust funds and personal fortunes of Lloyd's underwriters.

Building Societies

The principal function of building societies is to supply long-term loans on the security of private dwelling-houses purchased for owner occupation, though loans are occasionally made on the security of commercial and industrial premises and farms. The funds of building societies are derived mainly from the general public who invest in shares or deposits. The amount of share capital is not fixed; shares, which have a fixed value, are not dealt with on the Stock Exchange but may be withdrawn in cash if notice is given. The Building Societies Acts, 1874 to 1960, prescribe the general way in which societies must conduct their business. The Chief Registrar of Friendly Societies has discretionary powers to stop a society either advertising or accepting money from investors if he considers that the way in which the society's business is conducted is jeopardising investors' money. The rapid expansion of building society activity in the twentieth century has been accompanied by a concentration of most of the business in the hands of a few very large societies. At the end of 1961, 706 societies were in operation, with total assets of £3,437 million. The seven largest societies, however, account for more than half the total funds. The amount advanced on mortgage in 1961 was £546 million, about £13 million less than the record 1960 total.

Under the House Purchase and Housing Act, 1959, the Minister of Housing and Local Government and the Secretary of State for Scotland were empowered to make advances to building societies which fulfilled certain requirements as regards assets and liabilities, liquid funds, reserves and other matters. These advances are for relending to prospective house purchasers in respect of houses built before 1st January, 1919, which do not exceed £2,500 in value; they were suspended in July 1961, having been running at the rate of about £40 million a year.

TRADE AND PAYMENTS

Britain was one of the first countries to remove legal and fiscal restrictions on the internal movement of persons and goods, and the first to develop adequate facilities for the movement of large quantities of goods by mechanical transport (canals, roads, railways and steamships). With its resources of coal and iron, and its succession of mechanical inventions, Britain was also the first country to industrialise on a large scale and to produce a wide variety of consumer goods in large quantities. In addition, Britain evolved, over a long period of years, the specialised financial services essential for the smooth functioning of overseas trade.

OVERSEAS TRADE

Although relatively small in area and accounting for only 2 per cent of the world's population, the United Kingdom is the world's second largest trading nation, conducting nearly 10 per cent of international trade.

In the nineteenth century Britain attained a pre-eminent position in international trade. At the end of the century Britain's share of exports of manufactures entering into world trade was about 33 per cent. Its share of world imports was somewhat larger than that of world exports, as imports into Britain were paid for not only by exports of goods but by interest on overseas investments and net receipts from shipping and a variety of financial services. Even before 1914, however, this supremacy was being increasingly challenged by other nations, including Germany and the United States, and although Britain's imports and exports increased in absolute terms over the years, its share of the world total tended to decline. By 1937 Britain's share in world exports of manufactures, measured by value, had fallen to 22 per cent compared with 24 per cent in 1929 and 30 per cent in 1914. In the years immediately following the second world war, Britain's share rose again and in 1950 was 25 per cent; but by 1961 it had fallen to 16 per cent.

For over a century international trade has been of vital importance to Britain's economy. Britain relies upon imports for half its total consumption of foodstuffs and nearly all the raw materials needed for its industries. Its exports of goods and services together absorb over a fifth of the gross national product. It is a major supplier of machinery, road and railway vehicles, aircraft, metal manufactures, electrical apparatus, chemicals and textiles. Britain is the world's largest market for foodstuffs, and among the largest for metals, cotton, wool, petroleum and many other products.

PATTERN OF TRADE

Changes since 1938 in value, volume, composition and geographical distribution of imports and exports are outlined in the following paragraphs.

Value and Volume

Imports, which amounted to £919 million in 1938, passed the £2,000 million mark in 1948. With rapidly rising raw material prices, they totalled £3,892 million in 1951,

but this level was not surpassed until 1957. The 1961 total of £4,398 million was £143 million below the peak figure reached in 1960. The rise in the value of exports was from £471 million in 1938 to £2,174 million in 1950. There were marked expansions between 1954 and 1956 of £493 million to £3,143 million, and again between 1958 and 1961 of £506 million to £3,682 million.

Calculations of changes in the volume of trade (i.e. changes after eliminating variations due to price movements) compared with pre-war cannot be made with precision, as the relative values of different types of goods on which the volume figures are based have changed considerably since 1938. It has been estimated that in 1961 the volume of imports was about one-third greater than the 1938 figure, while the volume of exports was over twice that of 1938. Statistics showing the value and volume of imports and exports in 1938 and in selected post-war years are set out in Table 28.

TABLE 28
IMPORTS AND EXPORTS: ANNUAL FIGURES

	1938(a)	1948(a)	1951	1954	1959	1960	1961
<i>Value (£ million)</i>							
Total imports c.i.f.(b) ..	919	2,077	3,892	3,359	3,983	4,541	4,398
Exports of U.K. goods, f.o.b.(c)	471	1,579	2,566	2,650	3,330	3,555	3,682
Re-exports f.o.b.(c) ..	61	61	125	98	131	141	158
<i>Volume Index Nos.</i>							
Total imports, 1954=100	n.a.	n.a.	100	100	122	138	135
Exports of U.K. goods, 1954=100	n.a.	n.a.	100	100	116	122	125
<i>Price Index Nos.</i>							
Imports, 1954=100	n.a.	n.a.	113	100	98	99	97
Exports, 1954=100	n.a.	n.a.	100	100	109	111	112
<i>Terms of Trade(d)</i>							
1954=100	n.a.	n.a.	113	100	90	89	86

Sources: *Accounts Relating to Trade and Navigation of the United Kingdom*, and Statistics Division, Board of Trade.

(a) The figures for 1938 and 1948 are not completely comparable with those of later years.

(b) 'Cost-insurance-freight', i.e. including shipping, insurance and other expenses incurred in the delivery of goods as far as their place of importation in the United Kingdom. Most of these expenses represented earnings by United Kingdom firms.

(c) 'Free-on-board', i.e. the cost of the goods to the purchaser abroad, all costs and charges accruing up to the time of placing the goods on board the exporting vessel having been paid by the seller.

(d) The ratio of import to export price index numbers: a rise indicates an adverse movement.

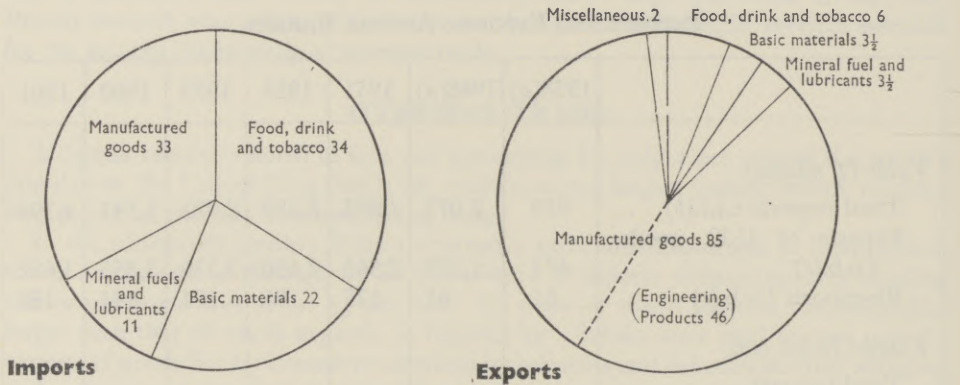
n.a. = not available.

The increased importance of exports in the economy can be assessed broadly by comparing their value with that of the gross national expenditure; the proportion has risen from 10 per cent in 1938 to about 16 (in 1961) or 17 per cent. Over the same period there was a much smaller change in the relationship of imports to gross national expenditure; it was about 16 per cent in 1938, and nearly 18 per cent in 1961.

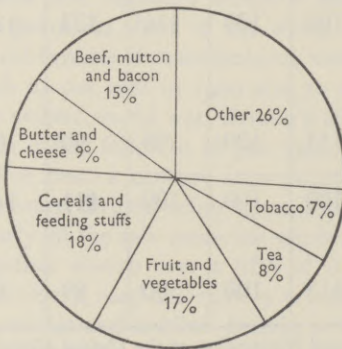
Commodity Composition

An analysis of the commodity composition of total imports and exports and the composition of engineering exports and food imports in 1961 is given in the diagrams below.

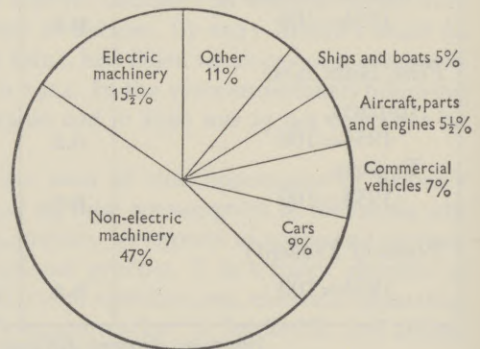
COMMODITY COMPOSITION OF IMPORTS AND EXPORTS IN 1961
(Percentages of total values)



Composition of Food, Drink and Tobacco Imports



Composition of Engineering Products Exports



As domestic output of agriculture has expanded by some 80 per cent compared with pre-war while the volume of food imports is now probably not very different from the pre-war level, Britain relies relatively less than before the war on imported food, which now forms a markedly smaller proportion of total imports. The value of imports of food, beverages and tobacco represented 45 per cent of total imports in 1935-38; since 1954, the percentage has not been above 40 per cent and in 1961 had fallen to about 34 per cent. On the other hand, imports of manufactures have increased since before the war and are now relatively more important in proportion to the total.

Imports of semi-manufactures formed 15 per cent of the total in 1935-38 and 14 per cent in 1948; by 1960 the proportion had risen to 20 per cent falling back to 19 per cent in 1961; for finished manufactures (including both capital and consumer goods) the proportion has risen from 7 per cent in 1935-38 to a peak of over 13 per cent in 1961. (A marked growth in trade in manufactured goods has been a general feature of world trade since the war.) Although the volume of imports of basic materials has shown a modest increase since 1938, their share of the total (based on value figures) is now less than pre-war: 28 per cent in 1935-38 and about 22½ per cent in 1961. Imports of fuels rose from 5 per cent of the total in 1935-38 to 10 per cent in 1954 and 11 per cent in 1961, owing to the greatly increased consumption of petroleum products.

In the early post-war years exports of engineering products increased considerably in importance in relation to United Kingdom exports as a whole. In 1935-38 they had represented 20 per cent of the total; in 1948 the proportion had risen to 36 per cent and since then there has been a steady increase to 45½ per cent in 1961. Although within this group the increase in the relative importance of motor vehicles and aircraft has been particularly marked; by far the largest items are machinery and equipment, such products as instruments and electronic apparatus expanding particularly rapidly. The share of chemicals has risen steadily. On the other hand, the share of textiles declined almost without a break from 24 per cent in 1935-38 to 19 per cent in 1948, with a sharper fall in later years to under 8 per cent in 1961. In the fuels group, the proportion of petroleum to the whole has fallen since 1954 but in 1961 was still greater than before the war. Most of the decline in the share of coal exports had taken place by 1948. The proportion of the total of exports of metals has remained fairly constant. Further details of the percentage composition of United Kingdom exports are set out in Table 29.

TABLE 29

PERCENTAGE COMPOSITION BY VALUE OF UNITED KINGDOM EXPORTS

Per cent

Commodity	Average 1935-38	1948	1954	1960	1961
Engineering products	20.1	35.9	37.9	44.2	45.5
Ships and boats	1.0	2.5	1.9	1.5	2.4
Road vehicles and parts	4.0	8.8	10.4	12.5	10.3
Aircraft, including engines and parts	0.8	1.6	1.8	3.8	3.9
Metals	13.4	11.9	12.8	13.3	12.9
Textiles (including wool tops)	24.0	19.3	13.5	8.5	7.8
Chemicals	6.3	6.8	7.7	8.9	8.8
Other manufactures	11.9	12.3	10.9	10.7	10.7
Coal, coke, etc.	8.0	2.8	2.5	0.8	0.8
Petroleum	1.0	0.6	3.2	2.9	2.6
Food, beverages and tobacco	7.4	5.9	5.8	5.5	5.6
Other products	7.9	4.6	5.7	5.2	5.3
TOTALS	100	100	100	100	100

Source: *Board of Trade Journal*.

Area Distribution of Trade

In 1961 the Commonwealth provided a market for a little less than two-fifths of exports of United Kingdom goods, while the six countries of the European Economic Community or Common Market (Belgium, France, Italy, Luxembourg, the Netherlands and the German Federal Republic) took nearly 17 per cent, the United States 8 per cent, the Middle East (including members of the sterling area) 6 per cent and Latin America 4½ per cent. The other members of the European Free Trade Association (including Finland) (see p. 426) accounted for about 13 per cent of United Kingdom exports.

Table 30 shows Britain's principal markets and principal supplier countries in 1961, and the percentage change compared with 1960 and 1955.

TABLE 30

UNITED KINGDOM EXPORTS AND IMPORTS IN 1961 BY MAIN COUNTRIES AND AREAS OF DESTINATION AND ORIGIN

UK Exports to	Value (£ million)	% change on		UK Imports from	Value (£ million)	% change on	
		1955	1960			1955	1960
United States and dependencies ..	283	+ 55	-14	United States and dependencies ..	484	+ 15	-15
Canada	222	+ 57	+ 3	Canada	350	+ 2	- 7
Australia	202	- 29	-22	German Federal Republic ..	194	+108	+ 7
German Federal Republic ..	171	+123	+ 5	Australia	175	- 34	-12
India	152	+ 17	+ 1	Netherlands	173	+ 29	- 4
South Africa ..	147	- 12	- 5	Sweden	161	+ 15	- 2
Sweden	141	+ 49	+ 8	New Zealand ..	160	- 13	-13
Netherlands ..	138	+ 30	+19	Irish Republic ..	146	+ 50	+20
Irish Republic ..	133	+ 23	+20	India	145	- 9	- 2
New Zealand ..	124	+ 11	+ 3	France	143	+ 5	+ 8
North America ..	505	+ 56	- 7	North America ..	833	+ 9	-11
Latin America ..	167	+ 47	- 3	Latin America ..	279	+ 17	-10
Western Europe ..	1,193	+ 51	+16	Western Europe ..	1,341	+ 34	+ 1
EEC countries ..	614	+ 64	+18	EEC countries ..	678	+ 40	+ 2
EFTA countries (a)	482	+ 40	+12	EFTA countries (a)	554	+ 24	- 1
Eastern Europe ..	105	+185	+36	Eastern Europe ..	156	+ 49	+12
Sterling Area ..	1,401	+ 2	- 2	Sterling Area ..	1,479	- 2	- 2
Middle East (b) ..	221	+ 39	+ 9	Middle East (b) ..	337	+ 38	- 2
All Exports ..	3,682	+ 28	+ 4	All Imports ..	4,398	+ 14	- 3

Source: *Board of Trade Journal* and *Annual Abstract of Statistics*.

(a) Including Finland.

(b) Sterling and non-sterling area countries.

From a longer term standpoint, one of the most important trends is the growth of exports to industrial countries, and particularly to the United States and Canada. The sterling area provides a higher proportion of United Kingdom imports than pre-war, although there has been a slight decline in the latter part of the past decade. Removal of restrictions has stimulated imports from North America since 1959, mainly industrial

materials and capital goods. The expansion of oil consumption has been a major factor in the increasing imports from the Middle East. In Western Europe, there has been a sharp rise in recent years in trade with Western Germany, which has become the most important British market there. Nearly one-third of both exports and imports relate to trade with Western Europe.

Re-Export Trade

Re-exports are goods which are exported (1) in the condition in which they are imported or (2) after having undergone minor operations—e.g. simple blending, husking, repacking—which leaves them essentially unchanged. For some hundreds of years Britain has been an important centre of re-export trade, although its importance relative to total United Kingdom export trade has declined in the last half-century. Traditionally, the greater part of United Kingdom re-export trade is in raw materials and foodstuffs, for example, wool, rubber, tea, non-ferrous metals and fur-skins. Recently, a considerable re-export trade has developed in machinery. A large part of the re-export trade is in commodities imported from Commonwealth countries and sent on to countries in Europe, particularly traditional re-exports such as tea and wool.

In 1961 the value of re-exports was £158 million, the highest total in any year to date and the principal items were: rubber, fur-skins, raw wool, tea, non-ferrous metals, beverages and aeroplane engines.

Invisible Transactions

As previously mentioned, the United Kingdom has normally imported more goods than it exports; until a few years ago the gap was covered by net earnings from invisible transactions, but since 1958 this source of foreign exchange income has declined sharply. In 1958 net invisible earnings were £285 million; in 1961 they amounted to £65 million.

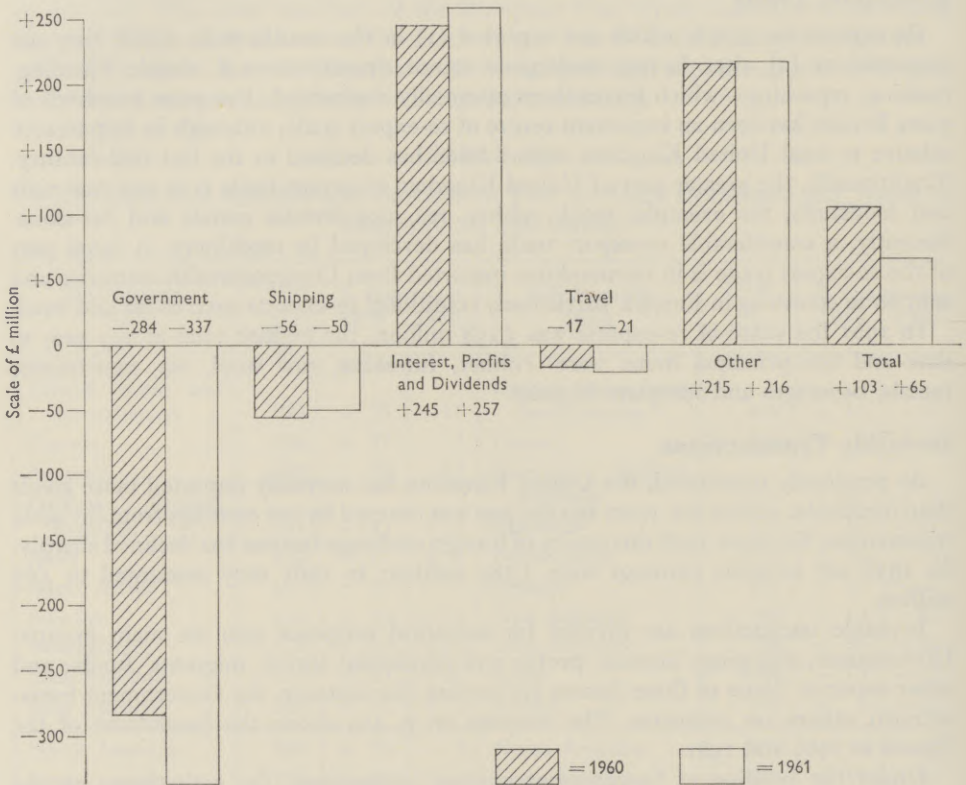
Invisible transactions are divided for statistical purposes into six main groups: Government; shipping; interest, profits and dividends; travel; migrants' funds; and other services. Some of these figures are precise (for instance, for Government transactions), others are estimates. The diagram on p. 424 shows the breakdown of the figures in 1960 and 1961.

Under the heading of Government current transactions, the main items on the debit side are rising military expenditure overseas and grants and loans, mainly to less-developed countries. Shipping receipts come mostly from export freights and cross trades between other countries and also from passenger traffic. Shipping payments, on the other hand, arise mainly on account of tramp shipping services. Shipping transactions produced a net credit until 1958, but now represent a net burden to the balance of payments. This deterioration has in part occurred because the capacity of the British merchant fleet has been outstripped by the expansion of Britain's overseas trade and by the growth of foreign fleets.

About three-fifths of Britain's receipts under the heading interest, profits and dividends come from investments in the sterling area. On the debit side, major items include interest paid on sterling held by other countries (which thus fluctuates with changes in short-term interest rates in Britain) and interest payments on long-term loans from Canada and the United States. Receipts from travel have increased greatly since 1950, reflecting the growing importance of the British tourist industry (see p. 424), but expenditure on travel and tourism overseas has also expanded, and the small net debit has changed little. Major components of other services include payments and receipts in respect of insurance, civil aviation, films; expenditure of United States

and Canadian forces in Britain and offshore sales by the United States Government (£59 million and £6 million respectively in 1961); net earnings of merchants; and royalties, commissions, banking and other services.

INVISIBLE OVERSEAS TRANSACTIONS, 1960 and 1961



Tourist Trade

The tourist industry is now one of Britain's largest earners of foreign currency. Over the period 1951-60, earnings from the foreign tourist trade and business travel amounted to the equivalent of £1,180 million, in addition to £500 million earned by associated British shipping and air services. In 1961 tourist receipts from overseas amounted to £206 million, while a further £93 million was estimated to have been paid to British carriers. United Kingdom residents on holiday or travelling on business overseas spent about £227 million in the same year. The United Kingdom usually has a large net surplus on earnings from tourism with North America (£60 million in 1961) but a deficit with Western Europe (£121 million in 1961).

The total number of visitors to the United Kingdom in 1961 was 1,824,000¹—an increase of 9 per cent on the 1960 total and twice that of 1954.

¹ This total excludes tourists (other than aliens) from the Irish Republic and foreign visitors in transit to other destinations.

The *British Travel and Holidays Association*, which is a grant-aided body, is concerned with the promotion of the tourist trade, particularly by means of publicity overseas. It maintains offices, agencies or representatives in many overseas countries (see Appendix p. 518). The association was formed in April 1950 by the merger of the British Travel and Holidays Board and the Travel Association.

CONDUCT OF TRADE

It has been a major aim of successive United Kingdom Governments since the second world war to work for the removal of restrictions on trade and payments, to reduce barriers to exports and, as far as possible, to restore the convertibility of sterling. To this end, Britain has taken a leading part in setting up such organisations as the International Monetary Fund (IMF), the General Agreement on Tariffs and Trade (GATT), the Organisation for European Economic Co-operation (succeeded in the autumn of 1961 by the Organisation for Economic Co-operation and Development (OECD)) and the European Payments Union (succeeded by the European Monetary Agreement), and has had a large share in these organisations' activities, especially those to free trade from the restrictions which grew up in the war and post-war periods.

In addition to substantial reductions in tariffs on imported goods, carried out through the GATT, the United Kingdom has removed almost all its quota restrictions on imports from countries with which it is in normal GATT relations.

There is a very short list of goods on which import controls remain. It includes some items of special difficulty and a few where restrictions are recognised internationally, such as arms, ammunition and radioactive materials.

Tariff Policy

In the nineteenth century the United Kingdom became strongly attached to the principle of free trade, and at the beginning of the twentieth century the only customs duties were those imposed for revenue purposes on a small range of products. During the first world war, certain duties (the McKenna duties) were introduced to discourage imports of motor cars, musical instruments, clocks and watches and cinematographic film. These were continued after the war. Certain key industries, notably optical and scientific instruments and fine chemicals, were given protection for strategic reasons under an Act passed in 1921. In 1925 duties were imposed, for revenue purposes, on imported silk, artificial silk and articles containing these materials; these duties were later transformed into protection duties. It was not until 1932, however, that any serious departure was made from the principle of free trade. Under the Import Duties Act of that year, the United Kingdom imposed a duty of 10 per cent *ad valorem* on all imported goods except those on a Free List (mainly important raw materials and foodstuffs) and set up machinery for the imposition of additional duties and for additions to be made to the Free List where appropriate. This measure provided a degree of protection for British industry and, at the same time, a basis for negotiations with foreign countries already in possession of a tariff structure.

The principle of Imperial Preference had been introduced into the United Kingdom customs tariffs in 1919 and, as a result of the Ottawa Conference in 1932, agreements were concluded with independent Commonwealth countries providing for reciprocal preferential tariff treatment over a wide range of goods. The Import Duties Act had already permitted the duty-free entry of goods from the United Kingdom dependencies.

A series of bilateral trade negotiations with other countries between 1932 and 1939 resulted in some modification in the level of protection and in the Commonwealth

preferences which had been established. During the second world war, because of Government purchase and import control, protection by the tariff was of relatively minor importance, and it was only after the substantial relaxation of quantitative import controls in 1949 that the tariff again became an effective instrument of protection.

Since the war, the United Kingdom's protective tariff has been considerably modified as a result of a series of multilateral tariff negotiations held under the auspices of the GATT, which permits the retention of existing preferences but prohibits the creation of new ones. The United Kingdom has, however, obtained certain limited waivers from the GATT no-new-preference rule; these permit, under certain conditions, increased tariff protection for United Kingdom industries while preserving duty-free commitments for Commonwealth goods, and allow increased preferences for the benefit of Colonial products wholly or mainly dependent on the United Kingdom market. In the negotiations under the GATT, United Kingdom customs duties have been reduced, or bound against increase, on goods which account for about half of Britain's normal imports from other contracting countries, in return for concessions by those countries. Margins of preference have thereby been reduced in some instances, but only in return for compensating tariff concessions by other countries, and only after consultation with all the Commonwealth countries concerned. The most recent series was completed in July 1962, after negotiations lasting nearly two years; it consisted mainly of tariff reductions negotiated between the members of the European Economic Community, the United Kingdom and the United States. The necessary changes in the British tariffs were to be brought into effect on 31st October, 1962.

Two Acts of recent years have affected tariff policy. The Customs Duties (Dumping and Subsidies) Act, 1957, empowers the Board of Trade to impose duties on imported goods of any description which have been dumped or subsidised and which are causing or threatening material injury to a particular industry. To date, on only five occasions has the Board found it necessary to impose anti-dumping duties. Several other cases have been settled by negotiation. The Import Duties Act, 1958, replaced the existing legislation relating to the protective tariff (i.e. four main Acts and some 70 Finance Act provisions) and brought it up to date in a single measure. Following the passing of the Act, the tariff was recast into an internationally agreed form (the Brussels Nomenclature), which came into use from 1st January, 1959.

European Economic Integration

The moves towards establishing closer economic unity in Europe have a direct and far-reaching influence on tariff policy. The British Government in February 1957 put forward proposals under which the six countries (France, Belgium, Luxembourg, the Netherlands, Italy and Western Germany) which in March 1957 signed the Treaty of Rome, establishing the European Economic Community (EEC), and other members of OEEC, would be associated in a free trade area covering industrial products in Europe. The negotiations proved unsuccessful and were suspended in November 1958.

During 1959 seven members of OEEC—Austria, Denmark, Norway, Portugal, Sweden, Switzerland and the United Kingdom—agreed to establish between themselves a European Free Trade Association (EFTA) with the object of reducing trade barriers in Europe and establishing a bridge between the EEC and the other members of OEEC. A convention was initialled in Stockholm in November 1959 and ratified by member countries in the early months of 1960. Under it, customs tariffs on trade in industrial products between members of EFTA are being eliminated by stages over a ten-year period. Reductions of 50 per cent had been made by 31st October, 1962.

In March 1961 an Agreement of Association was signed between Finland and EFTA, providing for a similar progressive reduction in customs tariffs.

On 10th August, 1961, the United Kingdom Government made a formal application for membership of EEC under Article 237 of the Rome Treaty. Negotiations started in the autumn of 1961 and have been principally concerned with safeguards for British agriculture and the interests of Commonwealth suppliers to the British market and the need to respect Britain's obligations to the other EFTA countries. Agreements covering a number of important issues, in particular those concerned with the trading interests of certain Commonwealth countries and with the position of British agriculture, had been reached by August 1962, when the negotiations in Brussels were interrupted for a short period.

Methods of Trading

The export trade and virtually all the import trade of the United Kingdom are conducted by private firms.

Methods of export trading vary considerably, according to the firm, the industry, the product and the market. A good deal of United Kingdom export trade, especially of the smaller manufacturing firms, is conducted through export merchants in the United Kingdom; many firms, however, sell to importers and consumers abroad through their own agents or resident representatives in the countries concerned; in other cases, sales are made through a firm's own branch offices, distributing organisations or subsidiary sales companies established in overseas markets.

Similarly, in import trade, many large firms engaged in manufacture or domestic trade buy directly from overseas suppliers, while smaller firms may find it more convenient to buy through intermediaries such as import/export houses, commission agents, and the representatives of overseas firms. Since January 1957 overseas trading undertaken directly by the Government has been confined to jute goods; the purpose of this is to protect employment in Dundee, where the jute industry is concentrated and forms the mainstay of employment.

CONTROLS ON TRADE AND PAYMENTS

During the war and in the difficult economic circumstances of the post-war period, a large number of restrictions on the movement of goods and services and on payments were imposed. Most of these have been progressively abolished. The following section gives a short account of the controls still in force.

Exchange Control

Exchange control, which includes, *inter alia*, control over the purchase and sale of gold and foreign currencies, was introduced at the outbreak of war in September 1939. Most of the temporary war-time powers were embodied in permanent legislation in the Exchange Control Act, 1947.

Exchange control is now confined mainly to transactions between residents of the sterling area and residents outside it, and has been greatly relaxed in the past few years. Since the end of December 1958 residents of all countries outside the sterling area can settle transactions between themselves in sterling. Sterling held by non-residents of the sterling area on an external account is freely convertible into other currencies, including dollars. The only remaining important restrictions relate to the movement of capital from the United Kingdom to non-sterling countries.

Exports of goods to destinations outside the sterling area are subject to exchange control and, in general, have to be paid for within six months in an acceptable currency

or by sterling from an external account. Control is also exercised over imports, to ensure that currency authorised for their payment is, in fact, used for that purpose.

Exchange control policy is the responsibility of the Treasury, but most of the administration is, in practice, carried out by the Bank of England as agent of the Treasury; and, in turn, the Bank of England has delegated to the commercial banks a wide variety of powers to deal with applications.

Overseas Travel

Restrictions in various forms on the amount of foreign currency and sterling notes that United Kingdom travellers might take abroad were in force from the end of the war until November 1959. Since that date there has been no limit on the amount of foreign currency that United Kingdom residents may obtain; a bank or authorised travel agency will supply up to £250 in foreign currency for any one journey to each traveller for purposes of travel outside the scheduled territories (sterling area); and an amount exceeding £250 may be authorised by the Bank of England on application being made through the traveller's bank. Reference is made to the Bank of England as a protection against the unauthorised export of capital and not to limit the amount available for travel. Travellers may take up to £50 in sterling notes and £250 in foreign currency notes without formality.

Import and Export Control

The Import, Export and Customs Powers (Defence) Act, 1939, empowers the Board of Trade to make statutory orders prohibiting or regulating the import or export of goods. The powers of both import and export control derive from the same legislation, but the purpose and mechanism are quite distinct.

Import Licensing

In accordance with its international obligations under the GATT and the IMF, the United Kingdom Government has, as the balance of payments has permitted, progressively removed restrictions from almost all imports from the countries of the free world. Goods still subject to control require a specific import licence and quotas have been set up for most of these goods. Some quotas refer specifically to individual countries and are usually shared out among exporters by the authorities of the countries concerned. Others are accorded on an overall or global basis; these are generally allocated by the United Kingdom authorities to United Kingdom importers, usually on the basis of their share of the trade in the commodity in the past.

Export Controls

Except for the control necessary to ensure that exports to destinations outside the sterling area are paid for in the proper manner (see above), United Kingdom exports are not, except in a very minor way, subject to any Government control or direction. The few controls that are in operation are imposed to supervise exports of military and strategic importance, to conserve materials, such as metal scrap, which may be in inadequate supply, to assist exchange control operations in preventing the export of capital in the form of valuable goods, and to prevent the export of works of art classed as national treasures, such as paintings, manuscripts and antiques. Normally, individual licences are required for specific consignments of goods subject to export licensing control. Goods controlled for strategic reasons, not included in the category of atomic energy materials and appliances, arms and ammunition, may be exported to the Commonwealth, the Irish Republic and the United States of America without licence.

GOVERNMENT ASSISTANCE TO OVERSEAS TRADE

The United Kingdom Government does not subsidise exports, but supplies information, advice and practical assistance (including credit insurance facilities) to exporters¹ and seeks to create conditions in which export trade can flourish. Its general economic policy includes the use of fiscal, credit and other measures to maintain a stable economy and to control excessive demand for goods and services by the home market, and action through international negotiation to reduce barriers to the free flow of trade and to move towards the freest possible system of trade and payments.

Information and Advice to Exporters

The Government department most concerned in export promotion is the Board of Trade, which calls upon the assistance of overseas representatives. At each Embassy or Legation there is always an officer of high rank, a Minister, Counsellor or First Secretary (Commercial), who specialises in commercial matters. These officers direct the commercial activities of consular officers in their respective territories. At important centres in the Commonwealth there are Trade Commissioners, who are directly responsible to the Board of Trade.

Overseas officers regularly report on local economic and commercial conditions, pay special attention to local demand for particular commodities, and generally assist the exporter to overcome any difficulties he encounters in trade with the country in question, particularly those arising out of governmental regulations. These officers investigate potential markets for United Kingdom products, advise about methods of trading with particular areas, and seek out and pass on opportunities for export business and inquiries for United Kingdom goods. Assistance is also given to United Kingdom exporters in appointing agents and locating potential importers. From records kept in London, brought up to date by reports from its overseas officers, the Export Services Branch of the Board of Trade can provide information concerning any country on:

- (1) prospects for United Kingdom exports and requirements of particular markets;
- (2) governmental regulations affecting trade, including import restrictions and tariffs and duties on particular commodities;
- (3) methods of trading;
- (4) local tastes and preferences in design; and
- (5) the probity and influence of firms with which an exporter contemplates entering into business relations.

The Government's official information services overseas help to promote trade by publicising British industrial achievements and providing information on new developments in British industry.

Export Credit Insurance

The Export Credits Guarantee Department, responsible directly to the President of the Board of Trade, is run on commercial lines to provide insurance for United Kingdom exporters and merchants against the main risks of financial loss incurred in overseas trading. These facilities have been developed over a period of more than

¹ Export promotion is also assisted by the Scottish Council (Development and Industry), the Northern Ireland Development Council, and the Development Corporation for Wales, see p. 262.

thirty years, and the department insured £806 million worth of exports in the financial year 1961-62; this sum represents nearly one-quarter of the total United Kingdom export trade. The department is obliged to conduct its business on a self-supporting basis, taking one year with another, and cannot therefore be regarded in any way as a provider of subsidies to exporters.

The risks covered include insolvency or protracted default of the buyer, governmental action which blocks or delays transfer of payment to the United Kingdom exporter, imposition of new import licensing restrictions in the buyer's country, war between the buyer's country and the United Kingdom, cancellation or non-renewal of a United Kingdom export licence, or 'any other cause of loss occurring outside the United Kingdom and not within the control of the exporter or the buyer, and not normally insurable with commercial insurers'. Cover may commence from the date of contract or (at lower premiums) from the date of shipment.

The main types of export insurance policy are:

1. *Comprehensive policies* normally covering goods sold on terms of up to six months' credit. The exporter insures the whole of his trade, or the whole of his trade with an agreed group of markets, for the twelve months (or, in some cases, three years) covered by his policy. For certain engineering goods this type of cover is extended to goods sold on credit terms of up to five years. Cover is also available for goods of foreign origin sold by a United Kingdom merchant to third countries, provided this trade does not conflict with direct United Kingdom exports.
2. *Specific policies* which cover capital and other goods sold on credit terms of up to five years. Specific policies are negotiated for each individual contract.

In October 1960 it was announced that to match overseas competition, in certain cases cover would be given for periods in excess of five years; where competition was supported by an overseas government, full matching cover would be given; in other cases, cover would be given on payments due within five years. In April 1961 ECGD introduced financial guarantees for United Kingdom banks providing finance on a long-term basis for overseas purchasers of large capital goods and works, and in January 1962 the London Clearing Banks, the Scottish Banks and a number of insurance companies agreed to provide finance at fixed rates of interest for such loans, and also in respect of other export financing on longer than three years' credit which was secured by an ECGD guarantee to the bank concerned.

The exporter or merchant is normally required to retain an interest in the debt or risk involved and, consequently, guarantees are given up to a maximum of between 85 and 95 per cent of loss. In February 1962 this was extended to 100 per cent for transactions involving over three years' credit which had already operated satisfactorily for two years. Premium rates are assessed separately for each country, and vary according to the risks and the terms of payment. Cover is also available for United Kingdom concerns carrying out services for overseas firms or, under certain conditions, entering into an international consortium.

Under the Export Guarantees Acts, 1949 to 1957, the Government has powers to give economic assistance to other countries (see p. 437).

Trade Fairs

An inquiry carried out by the Federation of British Industries (FBI) in 1957 showed that the large majority of British trade associations favoured the development of

specialised fairs, concentrating on the products of a particular industry or group of industries, rather than the general fair at which wide ranges of products are exhibited.

Some 70 specialised fairs are held every year in the United Kingdom and the number is growing steadily. An increasing proportion, at present about half the total, are international in character, and the remainder are national (i.e. open only to firms showing United Kingdom products). Some of the specialised fairs, such as the Motor Show and the Radio and Television Show, attract large numbers of the public as well as many trade buyers from home and overseas, and provide an important means of advertising and selling British goods.

United Kingdom manufactures are shown at most of the large international trade fairs throughout the world. For example, the United Kingdom is usually well represented at the Milan, Hanover and Poznan Fairs. In addition to such international events there are, from time to time, specially organised displays of British products. Through a subsidiary company, British Overseas Fairs Ltd., the FBI organised British Trade Fairs in Baghdad in 1954, in Copenhagen in 1955, in Helsinki in 1957, in Lisbon in 1959, in New York in 1960, and in Stockholm in 1962. In 1961 a British Trade Fair, organised by Industrial and Trade Fairs, Ltd., was held in Moscow, at which 620 British firms exhibited. United Kingdom manufacturers have been prominent at the many important specialised international fairs which are held in North America and Europe.

Participation in trade fairs and 'British Weeks' overseas is a form of export promotion for which the Government provides information, advice and, in certain cases, free facilities. The Government is prepared to provide stands for United Kingdom trade associations whose members wish to take part in overseas fairs; to build and manage British pavilions at trade fairs where displays are on a basis of nationality; to provide exhibits at all-British fairs; and to give support to 'British Weeks' and similar events (often including promotion of British goods in department stores). The amount allocated to the Board of Trade for these purposes has risen from £60,000 in 1955-56 to £570,000 in 1962-63.

Exports Councils

In 1960 the Dollar Exports Council was renamed the Western Hemisphere Exports Council and its area of responsibility was extended to include the whole of Latin America and the Caribbean as well as Canada and the United States. The Council (originally named the Dollar Exports Board) was established in 1949 by representatives of United Kingdom industry, trade, finance and organised labour, with the approval and support of the United Kingdom Government. It is an independent, self-governing, voluntary organisation to promote exports. A similar task is being undertaken in Europe by the Export Council for Europe, also set up in 1960.

BRITAIN'S ROLE IN THE FINANCING OF INTERNATIONAL TRADE

By a process of evolution through the centuries, the United Kingdom has developed an efficient and adaptable organisation of trade and financial services, centred mostly on London, and capable of meeting the needs, not only of Britain itself, but of the world in general. Britain's supremacy in this respect derives from a number of factors—historical, geographical and economic—as well as the technical efficiency and low cost of its services. In the nineteenth century, the rapid growth of British industry, commerce and shipping under the stimulus of the industrial revolution made Britain the market as well as the workshop of the world. It became the site for the chief world

markets in raw materials (see below), freight, insurance, and precious metals. At the same time, British capital was invested in overseas countries to assist their development, increase their output and exports, and provide markets for manufactured goods. London became the chief supplier of capital for many Commonwealth and foreign governments and a centre for entrepôt trade proceeding to and from the growing industrial areas on the continent of Europe and in North America. In course of time, the pound sterling and the sterling bill of exchange developed into the principal form of money for transactions between one country and another in all parts of the world.

Side by side with these developments, a sound commercial banking system and a flexible system of central bank control have been built up, while specialised institutions such as discount houses, merchant banks, accepting houses, the stock exchanges, investment trusts and finance corporations have evolved to satisfy particular needs for short-term or long-term finance (see pp. 408–15). The facilities provided by merchant banks and accepting houses, for example, have long been used to finance shipments of goods not only to and from Britain, but also between overseas countries themselves.

Commodity Markets

Britain is the traditional centre for marketing many of the world's basic commodities. Most of these markets were closed during the war but most, if not all, have now reopened and many have fully regained—some even surpassed—their previous position. Among the more important are the Baltic Exchange (the market for shipping and air transport, grain, seeds and vegetable oils), the London Commodity Exchange (cocoa, coffee, copra, hides and skins, rubber and sugar), the London Wool Exchange, the London Metal Exchange, the Liverpool Cotton Exchange and the Liverpool Corn Exchange. These markets not only cater for the import of goods for home consumption but do much business in effecting transactions between buyers and sellers in other countries. In addition to these formal markets, there is scarcely any product which cannot be traded through an intermediary in the United Kingdom. For example, London is the world's most important philatelic market and also the leading international centre for the sale of works of art.

The Foreign Exchange Market

The Foreign Exchange Market is subject to United Kingdom exchange control regulations governing the purchase and sale of foreign currencies in the sterling area, but these regulations have been progressively relaxed in recent years. The turnover of the market has increased materially since the introduction in December 1958 of external convertibility for the principal European countries.

The market consists of about 130 authorised banks and nine firms of brokers, all linked together by telephone in the United Kingdom, and by telephone, telex and cable with overseas centres.

The London Gold Market

The London Gold Market, which had remained closed from the outbreak of war, was reopened on a restricted basis in March 1954, under the general supervision of the Bank of England. It has regained its pre-war position as the leading centre for dealings in gold, handling about four-fifths of the gold coming on to the free markets of the world. The market consists of five firms dealing in gold bullion, whose representatives meet each working day to 'fix' the official London gold price.

The Sterling System

As a result of Britain's early lead in international trade and finance, several countries tended not only to use sterling as their natural currency for international transactions, but also to maintain central currency reserves in Britain. When Britain abandoned the gold standard in 1931 these countries, which came to be known as the 'sterling bloc' and later as the 'sterling area', did likewise, and pegged their currency exchange rates to the pound sterling. In 1939, after the outbreak of war, the pound sterling was no longer freely convertible into other currencies and the sterling area became more formally defined as a currency area for exchange control purposes. The United Kingdom imposes no exchange control on transactions with residents of other sterling area countries.

All the Commonwealth countries (except Canada), together with Burma, Iceland, the Irish Republic, Jordan, Kuwait, Libya, the Republic of South Africa and South West Africa, the British protected States in the Persian Gulf and Western Samoa are members of the sterling area. These countries contain one-quarter of the world's population and do one-quarter of the world's trade. The main feature of the sterling area is that the greater part of the overseas trade of member countries is financed in sterling; they keep their foreign reserves largely in the form of sterling and maintain a fixed relationship between their currencies and sterling. Member countries for the most part sell their foreign currency earnings in London in exchange for sterling and can purchase for sterling the foreign currency they require. They generally also sell gold in the London market for sterling. The United Kingdom reserves of gold and foreign currencies are held in the Exchange Equalisation Account, which buys and sells exchange in the market as appropriate, and is a large buyer of gold from the sterling area and elsewhere.

All these currency arrangements are voluntary; there are no strict or centralised rules of conduct, the Commonwealth member countries agreeing between themselves at periodic conferences the broad policies to be followed for the strengthening of sterling and of the reserves.

THE BALANCE OF PAYMENTS

Estimates of the United Kingdom's balance of payments are published half-yearly in White Papers. These publications provide a summary of the whole range of the United Kingdom's transactions with other countries, classified by type of transaction and by area.

The transactions fall into three main groups—current account, long-term capital account and monetary movements. The balance on current account is composed of the balance of visible trade (i.e. the difference between merchandise imports and exports and re-exports) and the balance of invisibles (see p. 423). On long-term capital account, the main groups of items are intergovernmental loans (including amortisation) and other identified net long-term investment abroad by United Kingdom residents, or in the United Kingdom by non-residents. The third heading, monetary movements, reflects in part the United Kingdom's position as an international banker. It includes identified capital transactions not of a long-term character (e.g. changes in acceptances); changes in overseas sterling holdings and changes in the United Kingdom reserves of gold and convertible currencies.

With the decline in receipts from invisible transactions and the continuing need for Britain to export capital, and in particular to give financial assistance to developing countries, the main balance of payments problem for the country is to achieve a

substantial surplus on visible trade account; that is to say, to export more while preventing imports from rising equally.

Between 1945 and 1951 the balance of payments on current account fluctuated widely. From 1952 to 1959 there were surpluses in each year except 1955. In 1960 there was a substantial deficit of £288 million, but in the following year this was reduced by over £200 million to £70 million.

TABLE 31
UNITED KINGDOM GENERAL BALANCE OF PAYMENTS £ million

	1959	1960	1961*	1961*	
				1st half	2nd half
Visible Trade (a)					
Imports (f.o.b.)	3,611	4,098	3,998	2,077	1,921
Exports and re-exports (f.o.b.)	3,507	3,707	3,863	1,965	1,898
Visible Trade balance	- 104	- 391	- 135	- 112	- 23
Invisible balance	+ 219	+ 103	+ 65	+ 52	+ 13
Balance on current account ..	+ 115	- 288	- 70	- 60	- 10
Balance on long-term capital account (b)	- 499	- 202	+ 8	- 17	+ 25
TOTAL	- 384	- 490	- 62	- 77	+ 15
Balancing item (c)	- 21	+ 306	+ 81	+ 27	+ 54
Balance of monetary movement (change in external position) (b)	+ 405	+ 184	- 19	+ 50	- 69

Source: *United Kingdom Balance of Payments 1959-61* (Cmnd. 1671).

(a) The values of exports and imports shown in this table differ from those in the Trade and Navigation Accounts used in Table 28 because of differences of coverage, valuation and methods of recording.

(b) An increase of assets is shown by a minus sign and a decrease by a plus sign. An increase in liabilities is shown by a plus sign and a decrease by a minus sign.

(c) The balancing item is introduced to balance the account. It represents the net total of errors and omissions in other items.

* Provisional.

Balance of Payments in 1961

The United Kingdom adverse balance on current account of £70 million in 1961 was made up of a surplus of £310 million with the rest of the sterling area and a deficit of £380 million with the non-sterling area. Formerly the deficit on visible trade was more than balanced by invisible earnings, but this did not happen in 1960 or 1961. The reserves of gold and convertible currencies rose by a total of £31 million and the total sterling holdings rose by £81 million during the year. At the end of 1961 these overseas holdings of sterling totalled £4,515 million, of which about three-fifths were held by the rest of the sterling area countries. Table 31 gives details of the United Kingdom's balance of payments from 1959 to 1961.

Reserves of Gold and Convertible Currencies

The reserves of gold and convertible currencies at the end of each year from 1945 to 1961 are shown in Table 32. At the end of August 1962 these reserves amounted to £1,017 million.

TABLE 32
RESERVES OF GOLD AND CONVERTIBLE CURRENCIES
(at end-December)

Year	£ million	Year	£ million	Year	£ million
1945	610	1951	834	1957	812
1946	664	1952	659	1958	1,096
1947	512	1953	899	1959	977
1948	457	1954	986	1960	1,154
1949	603	1955	757	1961	1,185
1950	1,178	1956	799		

Sources: *Annual Abstract of Statistics* and *Monthly Digest of Statistics*.

In addition to the gold and convertible currency reserves, Britain has drawing rights on the International Monetary Fund (IMF) based on its 'quota', which was raised to £696 million in 1959. In August and September 1961, to strengthen the reserves, the United Kingdom drew \$1,500 million (£536 million) in nine different currencies from the IMF, plus a further \$500 million to be held by the IMF under stand-by arrangements. This was the third occasion on which Britain has had recourse to IMF facilities. A final instalment of \$512 million (£183 million) at the end of July 1962 completed the repayment of these borrowings. At the same time a new stand-by arrangement with the IMF authorised drawings by the United Kingdom up to the equivalent of \$1,000 million over the twelve-month period from 8th August, 1962.

A further line of reserves is provided by the dollar securities, with an estimated value of \$750 to \$1,250 million, held by the Exchange Equalisation Account.

OVERSEAS INVESTMENT

Overseas Borrowing by Britain

Britain's difficulties in balancing its external accounts, particularly with the dollar area, in the immediate post-war years, were greatly alleviated by aid received from the United States and Canada. In 1945 the United States extended to Britain a line of credit of \$3,750 million, and a loan of \$650 million (later adjusted to \$622 million) in settlement of Lend-Lease and reciprocal aid adjustments arising out of the war. In 1946 Canada also extended a line of credit, amounting to \$C. 1,250 million, of which the United Kingdom drew \$C. 1,185 million. The terms of settlement with both countries provided for repayment in 50 annual instalments, starting on 31st December, 1951, with interest at the rate of 2 per cent a year. (Between 1948 and 1951 Britain received in all \$2,700 million in Marshall Aid from the United States under the European Recovery Programme.)

Overseas Private Investment in Britain

Overseas investors in Britain are allowed to repatriate the proceeds of the sale of their investments, including any capital gains that may have accrued, provided that the

investment was made after 1st January, 1950. Earned profits and dividends can be transferred, irrespective of the amount; transfers of this kind have never been restricted.

By far the largest proportion of private investment by overseas countries in Britain is made by United States firms. It has been estimated¹ that between 1950 and 1960 the total value of United States direct investments in Britain rose from \$847 million to \$3,194 million, representing about 48 per cent of the total United States direct investment in Western Europe over the period. The 1960 total included \$600 million in petroleum refining and distribution and \$2,164 million in manufacturing industry. A British Industrial Development Office has been established in New York to provide potential American investors with advice and information about manufacturing conditions in Britain. According to a survey by the Board of Trade, it is estimated that private direct investment (excluding oil and insurance) in 1960 amounted to £132 million, of which about £84 million was United States capital, £18 million Canadian and £16 million from Western European countries. Portfolio investment (for instance, by purchase on a stock exchange of securities in United Kingdom companies) by people in overseas countries has also increased markedly since 1957 and particularly in the latter half of 1961.

United Kingdom Investment Overseas

For well over a hundred years the United Kingdom has been a major supplier of external finance for other countries; up to the first decade of the twentieth century it was the foremost supplier of private long-term capital. The greater part of such private finance goes to Commonwealth countries (including colonial territories).

All the countries of the sterling Commonwealth except the United Kingdom are net importers of long-term capital and look to the United Kingdom for a substantial proportion of their external capital requirements. The sources and availability of capital for development are therefore regularly considered at Commonwealth Economic Conferences and similar meetings.

Private investment abroad may take several forms: the raising of loans on the London capital market; direct investment; the establishment of subsidiary companies; the ploughing back of profits earned overseas; and participation, jointly with domestic capital, in enterprises overseas.

The United Kingdom imposes no restriction on investment in the sterling area by United Kingdom firms. Such investment is frequently made from a firm's existing resources. However, borrowers outside the United Kingdom must normally obtain the consent of the Treasury (which is advised by the Capital Issues Committee) if the amount borrowed exceeds £50,000 in any one year. Borrowing by Commonwealth and Colonial Governments in the London capital market has fallen in recent years, but averaged about £50 million a year in the 1950s. Finance is also made available by the Commonwealth Development Finance Company (see p. 414), which, by March 1962, had entered into commitments totalling £22 million in thirteen Commonwealth countries for a wide variety of projects.

Investment outside the sterling area is subject to Exchange Control regulations. Restrictions introduced in July 1961 limited the provision of official exchange to direct investment projects which promised benefit in the short-term to the United Kingdom balance of payments. Revised arrangements, announced in May 1962, allow direct investment which does not meet this test to be financed in other ways.

¹ United States Department of Commerce's *Survey of Current Business*, August 1961.

Official exchange is not made available for portfolio investment (for instance the purchase of securities).

In recent years the net level of United Kingdom private investment in all areas has been over £100 million a year. The gross outflow of new funds has, however, been much larger and is estimated to have averaged £300 million yearly since 1953. About £150 million a year goes to under-developed countries. The results of a survey by the Board of Trade showed that private direct investment abroad by United Kingdom companies totalled £247 million in 1960, three-fifths being in the sterling area, some £43 million in North America and about £25 million in Western Europe. Preliminary estimates for 1961 give a total of £211 million. The figures exclude operations of oil and insurance companies but include reinvested profits.

UNITED KINGDOM GOVERNMENT AID FOR DEVELOPMENT

Since the second world war, despite economic difficulties, the United Kingdom has made available to other countries very large sums in the form of grants and loans for relief, rehabilitation, development and other economic purposes. Non-military loans and grants to the less-developed countries from the United Kingdom Exchequer have been increasing; figures are given in Table 33. The greater part of such assistance goes to dependent territories and to developing countries inside and outside the Commonwealth.

TABLE 33
UNITED KINGDOM GOVERNMENT ASSISTANCE
1951-52 to 1961

			£ million		
Year	Total	Year	Total	Year	Total
1951-52 ..	63	1954-55 ..	77	1958-59	110
1952-53 ..	52	1955-56 ..	84	1959-60	131
1953-54 ..	53	1956-57 ..	76	1960-61	150
		1957-58 ..	82	1961 (Calendar year)	162

Sources: *Annual Abstract of Statistics*
and *United Kingdom Balance of Payments 1959-61 (Cmd. 1671)*.

This assistance takes two forms: grants and loans, and payments for technical assistance arranged directly with the country receiving help (bilateral assistance); and contributions to international bodies (multilateral assistance). The division of assistance between these various forms is shown in Table 34. In 1961 bilateral assistance totalled £155 million and multilateral assistance was £6.5 million. Technical assistance, in so far as it is quantitatively assessable, accounted for over £18 million. Almost half of the bilateral assistance is in the form of grants.

There are several public sources of finance from which United Kingdom funds are made available for overseas development. The following are the principal forms of machinery through which funds are provided.

Export Guarantees Acts

Under Sections 2 and 3 of the Export Guarantees Act, 1949, as amended by Section 2 of the Export Guarantees Act, 1957, the Government has authority to give economic assistance to overseas countries. Securities issued by the borrowing country are

TABLE 34

ASSISTANCE BY THE UNITED KINGDOM GOVERNMENT FOR OVERSEAS DEVELOPMENT
Distribution of United Kingdom Assistance(a) 1960 and 1961

	£ million	
	1960	1961
<i>Colonial territories (b)</i>		
Grants	41.2	49.6
Loans	28.2	44.2
Total	69.4	93.8
<i>Independent Commonwealth</i>		
Grants	7.2	13.4
Loans	33.6	36.2
Total Independent Commonwealth ..	40.8	49.6
<i>Other Countries</i>		
Grants	9.9	10.5
Loans	4.5	1.6
Total other countries	14.4	12.1
Total bilateral assistance	124.6	155.3
Multilateral assistance	25.3	6.5
Total economic and technical assistance ..	149.9	161.8

Sources: *Annual Abstract of Statistics*
and *United Kingdom Balance of Payments 1959-61 (Cmd. 1671)*.

(a) The figures do not cover all technical assistance provided by the United Kingdom, some of which cannot be assessed in quantitative terms.

(b) Includes assistance to Nigeria, Cyprus, British Somaliland, Sierra Leone, Southern Cameroons, and Tanganyika before independence and to the Federation of Rhodesia and Nyasaland.

acquired by the Export Credits Guarantee Department (ECGD), and their purchase price used to facilitate payment for United Kingdom exports. The loans made through these powers to overseas Governments bear interest at rates related to the notional rates for United Kingdom Government borrowing.

From 1949 to June 1962 over 30 loan agreements with a total value of about £280 million had been made, of which all but 7 have been made since mid-1958. The total includes 11 loans to India, amounting to about £157.5 million, and 5 to Pakistan to a value of £35 million. For the more recent loans, repayment periods are up to 25 years, and in certain cases there is a grace period before repayments begin.

Colonial Development Corporation

The Colonial Development Corporation is a public corporation set up in February 1948 to assist Colonial territories in the development of their economies. The Corporation can borrow up to £150 million on a long-term and medium-term basis, and £10

million on a short-term basis. Exchequer advances to the Corporation outstanding at any one time may not exceed £130 million long-term and medium-term advances.

At the end of 1961, the Corporation reported that it had 102 continuing projects, and a total capital commitment of nearly £116 million. Of this, about £20.3 million was in the Far East, £16.5 million in the Caribbean and the remainder in Africa.

It was announced at the end of July 1962 that legislation would be introduced to authorise the Corporation to undertake development schemes in countries which have become independent members of the Commonwealth and in which the Corporation had previously been empowered to operate. It would be renamed the Commonwealth Development Corporation.

Colonial Development and Welfare Acts

The United Kingdom has made available, under the Colonial Development and Welfare Act of 1945 and subsequent Acts, £220 million for planned development and welfare in its dependent territories for the period 1946–60. Under the Colonial Development and Welfare Act, 1959, a further £95 million will be provided for the period 1959–64 for the continuation of assistance on the existing basis. The 1959 Act also provides for additional Exchequer loans of up to £100 million in the same period; the maximum amount approved for any one year must not exceed £25 million. In the financial year 1961–62, loans amounting to £16 million were approved; by the end of the financial year some £50 million had been made available. These loans and grants are used by the dependent territories to supplement development expenditure from their own resources and from market borrowing.

Aid through Intergovernmental Organisations

The principal intergovernmental organisations through which the United Kingdom provides aid to other countries are the International Bank for Reconstruction and Development (IBRD) and its affiliates, the International Finance Corporation (IFC) and the International Development Association (IDA), the United Nations Expanded Programme for Technical Assistance and Special Fund for Technical Assistance.

The United Kingdom's subscription to the capital of IBRD, \$2,600 million, is the second largest of any country. The £84 million representing the United Kingdom's paid-up sterling subscription to the Bank had been disbursed in full by September 1960, all but £4 million was for lending to Commonwealth countries. Repayments on loans financed in this way may be used by IBRD for fresh lending, thus constituting a revolving fund. In addition, IBRD has also borrowed £20 million by the issue of bonds on the London market.

The United Kingdom is contributing the equivalent of \$131 million to the capital of the IDA, set up in 1960, which provides long-term finance capital on special terms for under-developed countries.

The United Kingdom is also the second largest contributor to IFC,¹ and has subscribed \$14.4 million of the corporation's total capital of \$100 million. In addition, since 1949 the United Kingdom has contributed about £8½ million to the United Nations Expanded Programme of Technical Assistance² and since 1959 has provided nearly £2 million annually towards the resources of the United Nations Special Fund.³

¹ IFC was set up as an affiliate of IBRD in 1956 to provide capital to assist the growth of private enterprise in member countries.

² The object of this programme is to provide under-developed countries with expert advice and training facilities over a wide field.

³ The object of the fund is to extend the scope and resources of the existing technical assistance and development programmes of the United Nations.

Colombo Plan

The Colombo Plan for Co-operative Economic Development in South and South-East Asia had its origin in, and took its name from, the meeting of Commonwealth Foreign Ministers held at Colombo in January 1950. It is designed to provide a framework within which a co-operative effort can be made to raise the area's standards of living and to undertake economic development.

The cumulative total of commitments from the United Kingdom Exchequer for capital aid and technical assistance to Colombo Plan countries from 1951 to 30th June, 1961, amounted to about £259 million, of which £183 million had been disbursed.

The United Kingdom undertook at the Colombo Plan Consultative Committee meeting at Seattle in November 1958 to increase the amount of technical assistance to be provided up to 1963 from £7 million to £9 million.

INTERNAL TRADE

The internal trade of the United Kingdom can be divided into two broad categories: trade in raw materials, capital goods and intermediate products (for example, vehicle components) and trade in consumer goods, that is to say goods for direct sale to the public. (The pattern of consumers' expenditure is outlined in Chapter 9, *The National Economy*.)

The 1957 census of distribution, which was a large-scale sample inquiry, provides an account of the structure of retail trade and a full-scale inquiry into the wholesale trade was made by the Board of Trade for 1959. The full census of distribution, relating to the year 1950, also covered wholesaling and the catering and other service trades, and provides a comprehensive picture of the distributive trades as a whole. It also included more detailed information on the retail trades than was given in the 1957 census. Both censuses covered Great Britain but not Northern Ireland. A full analysis of retail trade will be provided by the results of the Census of Distribution carried out in 1962, and covering trade in 1961.

WHOLESALE TRADES

Only a proportion of the trade in consumer goods passes through wholesalers: sales are also made to consumers through producers' own selling organisations (including their own retail outlets and mail order business); and other sales are made directly by producers to retailers. Wholesale channels are particularly in evidence in the distribution of textiles, agricultural produce and foodstuffs. The inquiry made by the Board of Trade in respect of 1959 showed that out of a total of 19,000 business units engaged in wholesale distribution in Great Britain, over 3,000 dealt in clothing, footwear and textiles, 2,000 in grocery and provisions, 2,000 in vegetables and fruit, and over 3,000 in other food and in drink. In addition, there were 8,000 dealers (wholesale or retail) in coal, builders' materials, grain or agricultural supplies, and 7,000 dealers in other industrial materials and machinery.

Latest estimates for 1961 show that the level of stocks held by wholesalers and dealers is just under £900 million; expenditure on capital assets is about £80 million a year, about one-quarter of which is invested by business units engaged in distributing petroleum products, most of them being the distributing organisations of the major oil companies.

Methods of wholesale distribution vary according to the type of merchandise handled. Fresh fish, for example, is auctioned at the ports to port wholesalers who sell to inland wholesalers at the main distribution centres or, in some cases, direct

to retailers; fruit and vegetables, on the other hand, may be sold by growers to commission agents who dispose of the produce either to wholesalers or direct to retailers, or alternatively the grower may deal only with wholesale firms.

London's wholesale markets are of outstanding importance in the distribution of foodstuffs, particularly imported supplies. Covent Garden handles about five million tons of fruit, vegetables and flowers each year; nearly 8,000 tons of meat pass through Smithfield market each week; Billingsgate is the principal distributing centre in Britain for fish. Other markets in London include those at Leadenhall (poultry) and Spitalfields (fruit and vegetables).

Voluntary wholesale chains, that is to say independent retailers linking themselves to a single wholesaler or a group of wholesalers and so benefiting from some of the lower operating costs of large-scale trading without losing their independence, have developed quite rapidly in the grocery trade since 1954. As yet, however, they account for only a small, though growing, proportion of grocery business.

RETAIL TRADE

Types of Retail Shop

Retail shops in Britain may be classified under four heads: (1) retail co-operative societies; (2) department stores with a number of departments selling different types of goods (in some cases a firm may own several department stores); (3) multiple traders, that is organisations, other than co-operative societies or department stores, with ten or more branches; and (4) independent retail business and branches of small multiple stores (i.e. chains of stores with nine or fewer branches). In addition, there are a number of market and street traders but, according to the 1950 census of distribution, the amount of business done by these traders is usually very small; their average turnover was less than £2,000 per year. Table 35 shows the shares of the four main groups of retail business in total turnover in 1957.

TABLE 35
TURNOVER OF MAIN GROUPS OF RETAIL BUSINESS IN 1957

Main Groups	£ million	Percentage
Retail co-operative societies	905	11.6
Department stores	381	4.9
Multiple traders	1,902	24.4
Independent retail businesses	4,610	59.1
TOTAL RETAIL TRADE	7,798	100.0

Source: Board of Trade.

There are a large number of small undertakings; the 1950 census recorded 246,000 businesses with an annual turnover of under £5,000. Most of the smaller undertakings have working proprietors; out of the 2.6 million persons engaged in the retail trade in 1957, 590,000 were working proprietors and unpaid family helpers. Out of a total of about 574,000 establishments shown by the 1957 census of distribution, and recorded in Table 36, grocery and other food retailing groups numbered nearly 276,000 establishments, and the clothing and footwear group about 94,000. The 1957

census also showed that among multiple retail enterprises the three largest, each with more than 2,000 establishments, accounted for about one-eighth of the total turnover of this group of retailers.

TABLE 36
RETAIL AND SERVICE TRADES, 1950 AND 1957

	Number of Establishments		Turnover		Percentage change in turnover
	1950	1957	1950	1957	
			<i>£ million</i>	<i>£ million</i>	
Total Retail Trade	579,813	573,988	5,100	7,798	+53
Grocers and provision dealers	140,559	149,109	1,232	2,042	+66
Other food retailers	143,896	126,777	1,006	1,565	+56
Confectioners, tobacconists, newsagents	74,613	77,440	503	703	+40
Clothing and footwear	96,247	93,556	932	1,151	+23
Household goods	65,062	64,906	571	888	+56
Other non-food retailers	57,771	58,487	385	578	+50
General stores	1,665	3,713	471	872	+85
Service Trades					
Boot and shoe repairers	18,467	14,458	19	23	+19
Hairdressers	33,113	34,458	38	62	+64

Source: Board of Trade.

Present Trends in Retail Trade

By the end of 1961 the value of total retail sales in Great Britain had advanced 15 per cent by value over the 1957 level, the annual average rate of increase being about 4 per cent. Multiple retailers have been showing the fastest rate of expansion. Their sales in 1961 were up by 6 per cent on the 1960 figure (compared with increases of 1 per cent for co-operatives, 5 per cent for department stores and 3 per cent for independent retailers) and they had raised their total share of trade from 24½ per cent in 1957 to about 27½ per cent; over this latter period the shares of independent and co-operative societies have declined. The rate of increase also varied according to type of shop. Sales in the durable goods sector (furniture, radio and television, household appliances and cycle shops) decreased sharply after the re-imposition of hire-purchase restrictions at the end of April 1960, and in 1961 were about 5 per cent below the 1959 total, although an upward trend appeared towards the end of the year. Clothing and footwear shops' sales showed an increase of 3 per cent between 1960 and 1961 (after a rise of 8 per cent in the previous year) while food shops' sales advanced by 4 per cent. Retail prices, which had previously been rising for some years until 1958, were relatively stable in 1959 and again in 1960, but again moved upwards in 1961, and only about half of the increase in the value of sales (4 per cent over 1960) was attributable to a greater volume of sales.

In Northern Ireland the value of retail sales per week was 5 per cent higher in 1961 than in 1960 and 7 per cent higher than in 1959.

Development in Methods of Retailing

The development of self-service in retail establishments since 1950 has probably helped the multiple stores and, to a lesser degree, the retail co-operatives to achieve a higher rate of expansion in sales. The number of self-service shops in the United Kingdom in 1961 has been estimated at about 9,000 and new self-service outlets are being established at the rate of well over 1,000 a year. Over two-fifths of these shops are thought to be owned by retail co-operative societies and about one-third by multiple stores. On the basis of returns provided for the 1957 census of distribution, the Board of Trade has estimated that their total turnover in that year exceeded £200 million; unofficial estimates for self-service trading put the 1961 rate of sales at some £600 million. Self-service shops as a whole are now estimated to be responsible for over a quarter of retail sales (compared with 10 per cent in 1957) in the grocery and provision trade, but for other types of merchandise the proportion is insignificant.

Supermarkets, which may be broadly defined as self-service shops with a selling area of more than 2,000 square feet and selling all types of food and some household goods (such as cleaning materials), have been operating since 1956 in the United Kingdom. By 1962 about 650 had been opened, of which about one-half were in or around the London area. Co-operative societies own about a third of the supermarkets, and multiple stores over half.

New forms of automatic vending machines have come to the fore since 1955, and an increasing number of coin operated machines are being installed in factories and commercial premises as well as in normal retail outlets. The range of goods sold is widening and hot and cold beverages and prepared foodstuffs are among the most popular. Well over 200,000 machines are in use, and total sales are of the order of £20 million to £25 million a year.

An even more recent trend is the emergence of 'discount houses', which in essence are supermarkets often located outside established shopping areas, and selling household goods (as well as groceries) at prices below those normally prevailing. So far only a few discount houses have been opened in Britain.

There has also been a large increase in the number of mobile shops serving outlying housing estates and rural areas. Several thousand mobile shops, about half of which are owned by retail co-operative societies, are estimated to be in operation, the majority selling groceries or other foodstuffs; several manufacturers specialise in building fully equipped vehicles for this type of trading.

Mail Order Sales

Mail order trading has been one of the most rapidly growing forms of selling in the United Kingdom in recent years, especially in the north of England. Retail sales amounting to £128 million were reported by specialist mail order houses in 1957, compared with only £47 million in 1950, and some manufacturers and large stores also sell by mail order. Sales in 1961 have been estimated to be twice as great as in 1957. Mail order houses operate through recruiting agents who have at their disposal elaborate catalogues. The twenty largest companies account for about 85 per cent of total mail order sales; the bulk of their trade consists of clothing, footwear and household textiles. The smaller mail order businesses normally specialise in a single commodity, notably in the sale by post of seeds, plants and small horticultural requisites.

Retail Co-operative Societies

The retail co-operative societies are voluntary non-profit-making organisations engaged in retail trade and controlled by their members, who are also their customers.

An operating surplus is returned periodically to members as a dividend, and the amount distributed is proportionate to the value of the member's purchases.

Retail co-operatives also sell to the general public, but membership is open to anyone paying a small deposit on a minimum share, which entitles the member to an equal voice with other members in determining the policy of the society. Investment by individual members is limited to £500 but the rules of some societies fix lower limits. Only a low rate of interest is paid on the shares.

At the end of 1960 there were 955 retail co-operative societies registered under the Industrial and Provident Societies Act. Amalgamations are slowly diminishing the number of societies, the total having fallen by 60 in two years. More than a quarter of the total membership of the co-operatives (12,746,000) was provided by the eight largest societies, each of which had a membership of more than 150,000. One, the London Co-operative Society with just under 1.3 million members, is the largest retail co-operative in the world. Total sales of the retail co-operative societies in 1960 reached £1,008 million (this figure includes certain activities not covered by the census of distribution figure in Table 35); the largest society had a turnover of more than £56 million, and of the total trading surplus, £48 million, or about three-quarters, was allocated to dividends on sales.

Retail co-operative societies are free to purchase where they wish or to produce their own goods, but in order to secure the advantage of large-scale production and distribution, they have collectively established wholesale and production societies.¹

Hire-Purchase Sales

The rapid growth of sales of household and durable consumer goods, such as cars, furniture, washing machines, refrigerators and cookers, has been greatly helped by instalment purchasing. The Board of Trade has powers to regulate the terms of hire-purchase and credit sales agreements. In April 1960 minimum deposits and maximum repayment periods for most categories of consumer goods were reintroduced, but the former were reduced in June 1962. Total hire-purchase debt outstanding rose by over £450 million to £937 million between October 1958 (when controls were revoked) and April 1960; it amounted to £887 million at the end of June 1962.

Retailers finance most of their own hire-purchase business (covering furniture and other domestic goods) and at the end of June 1962 the hire-purchase debt owed directly to them, including the amount rediscounted by finance houses, was £294 million. The balance of their hire-purchase business is directly financed by finance houses but these companies are mainly concerned with the financing of hire-purchase business in motor vehicles and industrial, farm, and commercial equipment. At the end of June 1962 the hire-purchase debt owed directly to them was £593 million. There are a large number of these companies but a high proportion of the business is done by a small number which operate on a national scale. Finance houses suffered substantial losses in 1960 and 1961 as a result of bad debts, fraud and a declining volume of business. Measures have been taken to improve standards of credit-worthiness among potential borrowers.

Hire-purchase in Northern Ireland directly financed by the major finance houses operating from offices in Northern Ireland amounted in 1961 to over £11 million and at the end of 1961 the hire-purchase debt owed to them amounted to over £12 million.

¹ The two major wholesale societies are the Co-operative Wholesale Society Limited and the Scottish Co-operative Wholesale Society Limited.

Service Trades

About 1.3 million people are employed in Great Britain in industries providing services directly to the public. The largest number are in the catering and hotel trades, employing about 540,000, and the garage and motor repair trades, with over 360,000. Others include laundries, dry cleaning, entertainment, sports and recreations, and betting.

A census undertaken by the Board of Trade relating to 1960 showed that there were 125,000 establishments primarily concerned with catering with a total turnover in that year of £1,300 million. (Catering was defined to cover public houses, canteens, and fish and chip shops, as well as hotels and restaurants, etc.) Hotels and holiday camps (i.e. excluding boarding houses and small unlicensed hotels) had receipts of about £180 million, of which £80 million was from residential accommodation. Nearly half the total turnover of the catering trades was from the sale of alcoholic drinks.

There are about 1,500 commercial laundries with an annual turnover of about £70 million, of which some £45 million is domestic laundry. (The latter figure has tended to decline with the increasing popularity of coin-operated washing machines and laundrettes.) Dry cleaning firms have an annual turnover of around £30 million.

Of the estimated 36,000 garages in Britain, nearly one-third are mainly petrol filling stations, about the same proportion also deal with repair work, and the remainder are primarily motor car distributors. Most garages are tied under contract to major oil companies, selling only one company's petrol, and sometimes lubricants also.

Packaging

The Institute of Packaging estimated in 1961 that British industry spent between £500 million and £600 million annually on packaging, an increase of one-half during the previous decade. The expansion of self-service shops and the growth of sales in the form of branded and standardised products have been major factors in the great changes which have taken place in packaging methods. These developments are reflected in the marked increases in output of the industries concerned—plastics, fibre-board, metal tubes, tin plate and glass containers. Fruit and vegetables, for example, are increasingly sold in packs of transparent film. Aerosol dispensers, almost unknown a few years ago, were being used at a rate of over 55 million in 1961, having increased from about 28 million in 1959. Their principal uses are for insecticides and air fresheners. Laminated aluminium foil is now employed extensively as a wrapping material in the food industry.

Advertising and Industrial Information

The expansion of productive capacity in industries manufacturing consumer goods in Britain, and the ever-increasing choice of goods and services available to the consumer in recent years, have been accompanied by a steady upward trend in expenditure on advertising. About £466 million is estimated to have been spent on all forms of advertising in 1961, £21 million more than in 1960. About £210 million was expended on press advertising, over three-fifths of it in the national and provincial press and the rest in periodicals and magazines and in the technical trade press; and about £87 million (nearly half as much again as in 1959) was spent on television advertising. The remainder was divided between other media, such as posters, films, catalogues, window displays, exhibitions, and free samples and gift schemes. Most of the advertising is carried out by advertising agencies, which, in some cases, also provide marketing, consumer research and other services. The central organisation of the agencies is the Institute of Incorporated Practitioners in Advertising. The trade association for agencies, owners of advertising media, and all concerned in advertising

is the Advertising Association. The latter was responsible for the setting up in 1962 of the Advertising Standards Authority, an independent body whose objective is the promotion and enforcement of the highest standards of advertising.

Industry and commerce have in recent years paid increasing attention to improving public understanding of their work and objectives. Public relations consultancy firms and the public relations departments of advertising agencies provide general services, apart from the increasing employment by industrial organisations and trade associations of staff specialists in public relations. Their professional body, founded in 1948, is the Institute of Public Relations: not only commerce and industry, but the professions, national associations, central and local government are represented within the Institute.

Consumer Protection

Various legislative measures exist in the United Kingdom to protect the consumer against specific abuses. Independent organisations have also sought to establish voluntary minimum standards of quality. Weights and measures legislation, one of the earliest forms of consumer protection, is strictly enforced by qualified inspectors. The Merchandise Marks Acts, 1887–1953, are designed to ensure that the marking of goods is both accurate and honest. The British Standards Institution (see p. 272) has established a number of standards for consumer goods, and the Council of Industrial Design (see p. 230) helps to foster improvements in the design of consumer goods. Advice to the public on the merits of consumer goods is provided through the British Standards Institution's Consumer Advisory Council and by the Consumers' Association Ltd., a private body financed by the subscriptions of members; both issue to subscribers regular bulletins reporting on the qualities of products tested. Assistance with certain aspects of consumer guidance is also given by a number of other private bodies and by certain Government departments, e.g., the Department of Scientific and Industrial Research. Special arrangements in the form of consumer councils and consumer committees, have been made for the nationalised industries. Individual trades and industries have also taken measures to raise standards of quality.

The purity, hygiene and description of food are controlled by the Food and Drugs Acts, 1955, 1956, and 1958.

A committee, set up by the President of the Board of Trade in 1959 to consider and report whether changes in the law and other measures were desirable for the further protection of the consumer, presented its report in July 1962 (the Molony Report). It recommends the setting up of a Consumer Council, wholly supported by public funds, which would act as an authoritative spokesman for the consumer. It also recommends, *inter alia*, that additional support be given to Citizens' Advice Bureaux (see p. 136); that the protection at present afforded to those making hire-purchase transactions be extended; and that the Merchandise Marks Acts should be consolidated and amended.

In March 1960 the President of the Board of Trade set up a confidential fact-finding inquiry into the extent and effects of individual resale price maintenance (see p. 274).

A prospective purchaser of a second-hand car can obtain guidance as to whether the car he proposes to buy is the subject of a hire-purchase agreement. Virtually every hire-purchase agreement on a car is registered with H.P. Information Ltd., a non-profit-making company whose members are car dealers or finance companies concerned with car sales, and this company will answer inquiries made through its members, the police, solicitors, the motoring associations, or the Citizens' Advice Bureaux.

LABOUR

MANPOWER

The total working population of Great Britain at the end of June 1962 was about 24 million, some 47 per cent of the total population, and included about 76 per cent of persons of normal working age (15 years to 59 years for women, 15 years to 64 years for men). About 97 per cent of the men of working age are today in or seeking gainful work. The remaining 3 per cent consist mainly of those continuing their education, of the severely disabled and of some persons of private means. The proportion of women of working age in or seeking gainful work is much lower, about 47 per cent, as many housewives have no wish to take employment outside the home, or if they have, are prevented by household duties from doing so. Besides those of normal working age, there are probably about a million older men and women still at work. The great majority of the working population work for a wage or salary, but over 1.6 million are employers or self-employed.

The situation is markedly different in Northern Ireland, where the ratio of working to total population is under 40 per cent, and farmers and smallholders working their own holdings account for about an eighth of the working population. Northern Ireland, however, has under 3 per cent of the United Kingdom population, so that the figures for Great Britain are broadly representative of the position in the United Kingdom.

During the present century, decreases in both birth and death rates have had the effect of increasing the proportion of persons over the age of 35 years in both the total population and the working population (see p. 12). Changes in laws and customs have also had an effect. The school-leaving age has been raised to 15 years. The proportion of those over the normal working age who are still working has declined (though the great increase in the number of older persons has meant that the actual number who are working has increased). The proportion of men aged 20 to 64 who are at work has remained very high at all ages. Among women, on the other hand, there has been a steady increase during the century in the proportions employed in the age groups 15 to 59, but this has been offset by the raising of the minimum working age and by a decrease in the proportion of women employed above the age of 60. There has been an increase in the employment of married women, particularly in the last twenty years.

The proportion of women at work tends to decrease with age but is at every age much higher for single than for married women. Nearly 30 per cent of the female labour force is under 25 years of age and about 6 per cent is over 60. Almost all single women under 45 are in, or seeking, employment, compared with rather more than half in their late fifties; among married women, however, the proportion occupied, which is nearly 40 per cent for women in their early twenties, declines for the age-groups 25 to 34 but rises again for those aged between 35 and 50. An increasing proportion of women in the middle age groups are taking up employment (including part-time work) and the total number of married women working is now about the same as the number of single women working.

The total working population (including men and women in the armed forces) rose considerably during the second world war when housewives, including mothers of young children, manned war factories while men served in the armed forces. From the end of the war until mid-1947 the size of the working population declined as women left industry; then, after remaining fairly steady until mid-1949, it began to rise and has continued to rise since except for a slight recession in 1958. It is expected to continue to increase fairly rapidly for the next few years as the bulk of the young people born in 1946-48, when the birth rate was high, enter employment.

The broad changes in the manpower position in Great Britain between mid-1948 and mid-1962 are shown in Table 37.

TABLE 37
GENERAL MANPOWER POSITION IN GREAT BRITAIN

Thousands

	End- June 1948	End- June 1959	End- June 1962 (a)
Number in Civil Employment (b):			
Men	14,549	15,308	15,697
Women	7,020	7,889	8,298
TOTAL	21,569	23,197	23,995
Registered Wholly Unemployed ..	273	379	372
H.M. Forces (including Women's Services):			
Men	807	550	425
Women	39	15	17
TOTAL	846	565	442
Total Working Population (c):			
Men	15,657	16,137	16,400
Women	7,123	8,008	8,409
TOTAL	22,780	24,145	24,809

Source: Ministry of Labour.

(a) The mid-1962 figures are provisional.

(b) The civil employment figures include employers, those working on their own account and temporarily stopped workers. Part-time workers are counted as full units.

(c) The working population figures include small numbers of ex-Service personnel on leave after completing their service and not included in the other figures in this table.

Deployment of Labour

About 40 per cent of those in civil employment are employed in the mining and manufacturing industries and only about 4 per cent in agriculture and fisheries, even during the harvest season. Over half of those in manufacturing are in the metal, engineering and chemical groups of industries.

Most industries employ women as well as men, but there are jobs, such as underground work in coal mines, which are forbidden to women. The industrial groups in which women are chiefly employed are in the metal-using industries, in the manufacture of textiles and clothing, in the food, drink and tobacco industries, and in the distributive trades and professional and miscellaneous services.

An analysis of the total number in civil employment by broad industrial groups is given in Table 38.

TABLE 38
ANALYSIS OF CIVIL EMPLOYMENT IN GREAT BRITAIN

Thousands

Industry or Service	End- June 1948	End- June 1959 (a)		End- June 1962 (b)
		old basis	new basis	
Agriculture and fisheries	1,178	999	999	937
Mining and quarrying	876	823	826	714
Manufacturing industries:				
<i>Chemical and allied trades</i>	441	544	520	526
<i>Metals, engineering and vehicles</i>	3,944	4,602	4,166	4,458
<i>Textiles</i>	931	851	851	813
<i>Clothing</i>	649	644	565	587
<i>Food, drink and tobacco</i>	750	939	818	842
<i>Other manufactures</i>	1,422	1,589	1,557	1,659
Totals in manufacturing industries	8,137	9,169	8,477	8,885
Construction	1,450	1,509	1,523	1,628
Gas, electricity and water	321	374	374	387
Transport and communications ..	1,787	1,676	1,672	1,680
Distributive trades	2,484	3,000	3,209	3,317
Professional, financial and miscellaneous services	3,954	4,340	4,874	5,167
National Government Service	682	520	505	514
Local Government Service	700	787	738	766
TOTALS IN CIVIL EMPLOYMENT ..	21,569	23,197	23,197	23,995

Source: Ministry of Labour.

(a) A new standard industrial classification was introduced in 1958.

(b) The mid-1962 figures are provisional.

The numbers given in Table 38 as working in an industry or service, include those engaged on administrative, technical and clerical work, so that the totals given for the production industries are greater than the numbers on productive processes. Only about a third of the men at work and only about a quarter of the women at work are employed in manual occupations in mining or manufacturing industries.

The industrial and occupational distribution of the population has changed during the twentieth century. Some short-term changes were brought about during the two world wars and by the severe trade recession and unemployment of the inter-war years, but the following appear to be the main long-term trends:

1. A continuance at a decreasing rate of the decline in agricultural employment which was rapid at the end of the nineteenth century.
2. A general increase in administrative, technical and clerical employment, including public administration, and a very large increase in the employment of women in clerical work.
3. A decline in employment in certain of the large old-established industries, notably coalmining, cotton textiles and shipbuilding.
4. A very large increase in employment in the metals, engineering and vehicles group of industries and the chemicals group of industries. Employment in these industries approximately doubled between 1931 and 1951 and has since increased by a further 20 per cent. Expansion has been most marked in those sections of the industries making relatively new types of products, e.g., cars, aircraft, electrical and electronic apparatus and plastics. The rate of increase in certain branches of these industries was accelerated during both world wars.
5. A decline in indoor private domestic service, in which the number of women employed fell by about a million between 1901 and 1951.
6. A considerable increase in the numbers employed in the distributive trades.

Unemployment and Labour Demand

Since the end of the second world war, unemployment in all parts of Great Britain has been very much less than in the period between the two world wars, when the general rate ranged between 9 and 22 per cent.

This decline in unemployment is due partly to specific measures taken by the Government (see pp. 260-2) but, in the main, to changes in the general economic situation. The general demand for labour has been high, the number of unfilled vacancies on the registers of employment exchanges often exceeding the number of registered unemployed (especially in the summer months) while the demand for certain types of skilled craftsmen and for qualified scientists, engineers and technicians has far exceeded the supply.

Since 1945 the unemployment rate in Great Britain (the ratio of the number of unemployed to the total number of employees) has ranged, except for brief periods, between 1 and 2 per cent.

The unemployment rate varies in different localities and, though high unemployment has ceased generally to be a problem in any of the major industrial regions, there is still relatively high unemployment in a number of districts in Scotland and Wales, and in certain seaside resorts and isolated localities in England. Under the Local Employment Act, 1960, the Government has powers to alleviate unemployment in those districts known as development districts (see p. 261).

Northern Ireland

The total working population of Northern Ireland—including employers and self-employed, but excluding certain unpaid helpers—was about 539,000 in June 1961 (365,000 males and 174,000 females). The largest productive industries are agriculture and textiles. Most of the agricultural work in Northern Ireland is done by

small farmers and their families without hired help. The total manpower in agriculture, forestry and fisheries was 73,000 in mid-1961, according to the official estimates of the Ministry of Labour and National Insurance of the Northern Ireland Government, and was considerably larger according to other estimates which include unpaid helpers, but the number of insured employees in these industries was only about 17,000. The textile industry, traditionally concerned with linen, employs about 60,000 people and now makes extensive and ever increasing use of man-made fibres as well as natural fibres.

The unemployment rate in Northern Ireland has remained higher than in England, Wales or Scotland. In July 1962 it was about 7.2 per cent of the insured employees and during the last 10 years has rarely fallen below 6 per cent. The Ministry of Commerce of the Northern Ireland Government has wide powers (similar to those of the Board of Trade in development districts in Great Britain) to assist the development and diversification of industry. It is using these powers vigorously in an attempt to improve the situation.

GOVERNMENT EMPLOYMENT AND TRAINING SERVICES

The provision of employment services in Great Britain has been one of the principal functions of the Ministry of Labour since its inception in 1916. Northern Ireland has its own legislation in these matters which embodies the main principles of the corresponding legislation in Great Britain, but owing to the much smaller area of administration and the less favourable employment situation, the facilities available are not so comprehensive in their scope as is the case in Great Britain, and administrative arrangements are in some respects on different lines. The responsible department is the Ministry of Labour and National Insurance.

The following account, therefore, of services in Great Britain applies in general to Northern Ireland except where otherwise stated. The scope of the services in Great Britain has gradually been extended to include the provision of advice on employment and, in suitable cases, of vocational training. The Employment and Training Act, 1948, provided a permanent legislative basis for these wider services. The main services are provided through the country-wide network of some 900 local employment and branch employment offices, which act as employment exchanges. Local employment committees, composed of representatives of employers, workers and other local interests serving all areas, are attached to certain employment exchanges as advisory bodies to secure for the department the full benefit of local knowledge and the close co-operation of employers and workers. There is an additional service designed to meet the needs of men and women who are qualified for professional, administrative, managerial, senior executive and technical and scientific posts at home and overseas and for those likely to qualify, i.e. ex-regular officers of the armed forces and young men and women suitable for training. This service is operated in Great Britain through the Professional and Scientific Register, held at 38 of the larger exchanges.

General Employment Services for Adults

All the offices referred to above accept on their registers both employed and unemployed persons seeking employment. Their primary function is to introduce suitable persons seeking employment to employers requiring employees, thus providing an efficient service to employers and job-seekers and meeting the needs of the national economy.

The employment exchanges holding the Professional and Scientific Register are also ready to give information about the professions and allied occupations to young men and women aged 18 years and over who have not already established themselves in a profession or in the business world, and to older people who wish to change their careers.

In certain densely populated areas where there are large groups of hospitals, there are employment exchanges with officers specially trained to deal with the employment problems of nurses, midwives and those in related occupations. There are 27 of these offices. Outside the larger areas, nurses and their employers are dealt with at the local employment exchange. Qualified nurses are available to give advice and conduct interviews where necessary.

The Regular Forces Resettlement Service exists within the Ministry of Labour, and works through the employment exchanges, helping regular officers and other ranks returning to civilian life to find suitable employment. During the past 4½ years nearly all officers and other ranks leaving the armed forces have been satisfactorily resettled. The Ministry of Labour arranges with local education authorities in various parts of the country for the provision at commercial colleges of business training courses lasting six weeks designed to meet the needs of regulars who wish to take up a business career on leaving the forces. Four-week courses in industrial supervision are provided to help the resettlement in civil life of regular Warrant Officers and senior NCOs: these courses are held at the Ministry's Staff Training College, Letchworth. Where necessary, training for a civilian trade is available under the vocational training scheme (see below).

In view of the increasing number of older persons in the population the Ministry recognises the need to promote the employment of older men and women and has carried out considerable publicity to persuade employers to consider older workers on their merits without regard to their age; employment exchanges have instructions to make special efforts to find employment for older persons.

Vocational Training

A special responsibility of the local employment offices is recruitment under the vocational training scheme. In Britain the main responsibility for vocational training for employment below professional level rests on the industries and trades directly concerned. The main purpose of the Ministry's scheme is to assist certain classes of people in special need of help to fit themselves for suitable employment, but the Ministry is also concerned in helping to overcome shortages of labour in key industries and for this purpose training is available to a much wider range of workers. The majority of trainees under the scheme are disabled persons but many are able-bodied men and women seeking employment after voluntary service in the regular armed forces, or other unemployed persons having special difficulty in resettlement (including skilled workers whose prospects of employment in their existing trade are poor).

The training is normally provided at one of the 13 Government Training Centres which are situated near the main industrial areas, but training under the scheme can in some cases be arranged at technical and commercial colleges, private training schools or employers' establishments and, for the more severely disabled, at four residential Training Centres run by voluntary societies.

Courses vary in length according to the trade; most last for six months. Schemes of training for particular trades have been drawn up in consultation with representatives of the employers and workers concerned, who in some cases also assist in the selection of persons suitable for training. Allowances, at a higher rate than for unemployment

benefit, are paid to trainees during training to maintain them and their dependants. About 5,000 people were trained under the scheme in 1961, and about 95 per cent of them were subsequently employed in the trade for which they had been trained.

Training of Apprentices

As one measure designed to encourage industry to increase its intake of apprentices during the years 1961 to 1963, when large numbers of children are leaving school, facilities have been provided in Government Training Centres for full-time training of apprentices in their first year. The object is a demonstration, limited in numbers, to enable employers to see for themselves what can be achieved by systematic methods of practical and theoretical instruction, combined with day-release for further education at technical colleges. The employers continue to pay the apprentices' wages during the course and are responsible for completion of the remaining years of apprenticeship. In Northern Ireland the Ministry of Labour and National Insurance sponsors the training of additional apprentices by employers in the engineering industry, a condition being that the sponsored apprentices are available for recruitment to new industries.

Special Training Services

The Ministry of Labour provides a service to industry through its scheme of Training Within Industry for Supervisors. The four programmes of instruction which comprise the TWI scheme are: job relations, the fostering of good working relationships; job instruction, the technique of instructing or directing staff; job methods, the steps taken in planning the best way of doing a job; and job safety, which seeks to arouse safety consciousness and to train supervisors to detect dangers and deal with them.

The Ministry employs a small staff of TWI officers, who both train supervisors directly and also train firms' representatives to enable them to present TWI courses to supervisors in their own concerns. The Ministry is prepared to extend a measure of these services to overseas branches of British firms. It is prepared also to train suitable persons to develop the scheme in their own territories. The arrangements may be made by the government of the country concerned or (where appropriate) by the International Labour Organisation (ILO).

In addition, the Ministry's Technical Staff College at Letchworth, Hertfordshire, provides two-week courses in teaching methods for instructors responsible for the training of apprentices and other workers. These courses have been developed by the Ministry to meet its own requirements for the training of instructors engaged in training adults in skilled occupations at Government Training Centres, and the syllabus has been made available to employers in the United Kingdom and in overseas countries.

Vocational training services at Government Training Centres, TWI courses, and courses at the Ministry's Technical Staff College at Letchworth, are available to trainees from overseas under approved schemes (for instance, those of the ILO or the Colombo Plan).

Employment of Workers from Overseas

Foreigners are admitted to the United Kingdom to take up employment with a particular employer, provided they are in possession of a permit issued to the prospective employer by the Ministry of Labour (the Ministry of Labour and National Insurance for Northern Ireland if the proposed employment is in Northern Ireland).

Over 50,000 such permits are issued each year. Of these, nearly two-fifths are for domestic workers in hospitals, schools, other institutions and private households, and nearly one-eighth for student employees. Employment is limited to a maximum of one year in the first instance but may be extended on application by the employer. In certain circumstances, permission may be given by the Home Office for foreigners who landed as visitors or students to take employment approved by the Ministry of Labour. Approval is subject to the same conditions and requirements as are applied to the issue of permits to foreigners while still abroad.

Before a permit is issued, the Ministry of Labour must be satisfied that there is a *bona fide* job, that no suitable British or foreign worker already resident in Britain for a long period is available, and that the wages and conditions of employment are not less favourable than those enjoyed by British workers. These conditions are waived for student employees who are admitted for limited periods in order to improve their English and to gain a wider knowledge of their occupations. A foreigner permitted to take employment in the United Kingdom may not change his employment, unless his prospective employer has obtained prior approval from the Ministry to employ the foreigner.

The permit system applies to individual foreigners. In addition, after the second world war, far greater numbers were admitted under various schemes organised by the Ministry, notably the resettlement of members of the Polish Forces who felt themselves unable to return to post-war Poland, and the recruitment of European volunteer workers from the displaced persons' camps in Germany, Austria and Denmark. More recently, the United Kingdom Government has admitted many Hungarian refugees who fled from their country following the uprising in October 1956, and there is a current scheme whereby the Ministry assists in the bulk recruitment of Italian workers. Special arrangements are made to dispense with the need for individual permits in these cases.

The United Kingdom, as a member of the Western European Union, participates in the arrangements for assisting nationals of the countries concerned to obtain employment in other member countries.

These controls over entry and employment used to apply only to citizens of foreign countries. Until 1st July, 1962, all citizens of the Commonwealth had the right of free entry to the United Kingdom. Since that date, however, Commonwealth citizens from overseas have been subject to control under the Commonwealth Immigrants Act, 1962. Except for those who were born in the United Kingdom or hold passports issued by the United Kingdom Government, the control applies, broadly, to all Commonwealth citizens. Such people, if they wish to come to Britain for full-time employment, are now required to be in possession, on their arrival, of an employment voucher issued by the Ministry of Labour. Vouchers are issued without restriction to those who have obtained jobs with named employers, and to those who have some skill or qualification of particular value. Subject to a numerical limit laid down from time to time by the Government, vouchers are also issued, on the basis of 'first come, first served', to other Commonwealth citizens who wish to come to Britain to seek employment. (Commonwealth citizens who wish to work in Northern Ireland, and who are not 'Northern Ireland workers'¹, need special Northern Ireland employment permits, which are issued only in respect of definite jobs).

The Commonwealth Immigrants Act applies also to citizens of the Irish Republic; but no control is imposed on persons travelling between Ireland and Britain.

¹ People qualified by birth and residence to work in Northern Ireland.

The Republic of South Africa formally left the Commonwealth on 31st May, 1961. Under the South Africa Act, 1962, South Africans who possessed British nationality by virtue only of their citizenship of the Republic of South Africa ceased to be British subjects and became aliens on 31st May, 1962. From that date, therefore, any South African entering the United Kingdom for the first time for employment must be in possession of a permit issued to the prospective employer.

Youth Employment Service

The Ministry of Labour is also responsible in Great Britain for two specialised employment services: the Youth Employment Service and the Disablement Resettlement Service.

The purpose of the Youth Employment Service is to help young people leaving school and young workers under 18 years of age at the start of their working life.

The service is under the general direction of the Central Youth Employment Executive, staffed by officers of the Ministry of Labour, the Ministry of Education and the Scottish Education Department. This joint executive is appointed by the Minister of Labour, who is responsible to Parliament for the Youth Employment Service as a whole. The Minister has appointed a National Youth Employment Council and separate advisory committees for Scotland and for Wales to advise him.

Locally the service is operated in most areas through Youth Employment Offices established by local education authorities (in Scotland by education authorities) in accordance with the schemes submitted by them to the Minister of Labour and approved by him. In those areas where such schemes are not in operation, the service is operated by the local office of the Ministry of Labour.

The main functions of the service are to collect and disseminate information on careers, provide talks in schools, give vocational guidance, find suitable employment and keep contact with young workers to help them to settle down. A further function is to help employers to fill vacancies for young people. Local youth employment committees, made up of teachers, employers, workers and other appropriate interests, assist the service in an advisory capacity.

In Northern Ireland the functions of the youth employment service are similar to those in Great Britain but its organisation is different. A new unified service, for which the Minister of Labour and National Insurance will be responsible, started with the establishment in December 1961 of a statutory board composed of representatives appointed by the education committees of the counties and county boroughs, and persons appointed by the Minister to represent the governors of voluntary grammar schools, teachers, employers, workers, the universities and colleges, youth organisations and the Churches' Industrial Council. There will also be local youth employment committees, as in Great Britain. This service will gradually replace that now operated by the Ministry of Labour and National Insurance with the co-operation of the Vocational Guidance Service of one of the education committees.

Disablement Resettlement Service

The purpose of the Disabled Persons (Employment) Acts, 1944 and 1958, on which all the work of the Ministry of Labour for disabled persons is based, is 'to make further and better provision for enabling persons handicapped by disablement to secure employment or work on their own account', and the Disablement Resettlement Service is designed to help disabled persons to get and keep suitable work. The service is available to all persons over school-leaving age who are substantially handicapped as a result of injury, disease or congenital deformity in obtaining or keeping employment.

The Ministry of Labour is responsible for the administration of the service. At each of its local offices there is a disablement resettlement officer, working under the direction of the manager and in co-operation with other officers. Besides his contacts with employers this officer is in touch with all the hospitals in his area and visits any patient who wishes to discuss the question of future employment. His work involves close co-operation with doctors, local authorities and voluntary welfare agencies.

The help given by the service falls under five main headings:

1. *Vocational Guidance.* This is given at local offices by disablement resettlement officers in consultation, as necessary, with the local disablement advisory committees, hospital resettlement clinics and medical interviewing committees, and also by vocational psychologists in the industrial rehabilitation units (see paragraph 3).

2. *Placing in Ordinary Employment.* Having regard to a disabled person's qualifications and aptitude and to medical guidance, and concentrating on what the person can do rather than on what he cannot do, the disablement resettlement officer endeavours to find the work most suited to each person, either immediately, or in appropriate cases after a course of industrial rehabilitation or vocational training. To some extent this is facilitated by the main provision of the Disabled Persons (Employment) Act, 1944, namely, that all employers of 20 or more persons are required to employ a quota (at present 3 per cent for all industries, except shipping, in respect of the manning of ships) of registered disabled persons. Registration is voluntary. The number of disabled persons registered on 16th April, 1962, was 656,402. At the same date 52,323 registered disabled were unemployed, 47,346 being considered capable of ordinary employment. The remaining 4,977 were so severely disabled as to be classed as unlikely to obtain ordinary employment, though in fact many so classed are found work in open industry by careful selective placement.

3. *Industrial Rehabilitation*¹ is provided at seventeen units run by the Ministry of Labour. These units offer to men and women an opportunity, when their medical treatment is completed, to adjust themselves gradually to normal working conditions and to obtain vocational guidance based on a skilled assessment of their aptitudes. No charge is made for attendance and maintenance allowances are paid. Courses are individually planned and average about eight weeks. Recommendations for courses are made in the first instance to the disablement resettlement officer at the employment exchange, who has responsibility for placing in employment after the course.

For the blind, similar industrial rehabilitation facilities are available at two centres conducted by voluntary organisations, with the financial assistance of the Ministry of Labour.

4. *Vocational Training.* There are vocational training facilities for the disabled at Government Training Centres, educational institutions and employers' establishments. For the more seriously disabled there are special residential training colleges run by voluntary organisations with the financial assistance and technical help of the Ministry of Labour. There are also arrangements for the training of special categories of disabled persons such as the blind, and for providing disabled persons (including the blind), who are of the appropriate educational standard, with grants to undertake study or training for the purpose of qualifying for professional or comparable employment.

5. *Sheltered Employment.* Remploy Ltd., a non-profit-making public company with no share capital, was set up in accordance with the provisions of the Disabled Persons (Employment) Act, 1944. Its objects are to provide training and employment

¹ For an account of medical rehabilitation of the disabled, see p. 149.

facilities for registered disabled persons unlikely to obtain work except under special conditions. Its powers include the provision of special factories and workshops, hostel accommodation and facilities for homeworkers. The directors are appointed by the Minister of Labour; funds for capital development and to meet operational costs are provided by loans and grants under the Ministry of Labour Vote. At the end of 1961 Remploy Ltd. operated 89 factories and employed 6,251 severely disabled men and women, including some 160 homeworkers.

Facilities for the employment of both blind and severely disabled sighted people are provided by local authorities and by voluntary organisations, with the financial assistance of the Ministry of Labour. At the end of December 1961, 67 workshops for the blind accommodated 258 blind people in training and 3,657 in employment. In addition, some 1,100 blind people were working at home under homeworkers' schemes. The Ministry also helped to finance the training and employment of 1,075 severely disabled sighted people in 45 workshops provided by local authorities or voluntary undertakings, and 132 such people in workshops for the blind.

TERMS OF EMPLOYMENT, CONDITIONS OF WORK AND LABOUR RELATIONS

At the beginning of the nineteenth century, industrial workers lacked legitimate means of defending their standards of living or of ameliorating their working conditions. The traditional methods of fixing wages had become obsolete, trade unions were regarded as criminal conspiracies, and there was no protective legislation setting minimum standards of safety, health and welfare in places of work.

The first attempt at protective legislation was the Health and Morals of Apprentices Act, 1802, but the first effective Factory Act was that of 1833, which created an inspectorate employed and paid by the central Government to enforce its provisions. Since that date, legislation extending, strengthening, adapting and consolidating the statutory protection for employees has been passed at an accelerating rate. The progress in standards has owed much to the recommendations of strengthened inspectorates, much to the example of progressive employers and much to the persistent pressure of trade unions and disinterested reformers.

Trade unions ceased to be actionable conspiracies in 1824 but their status as legal entities was not properly established until 1871. This latter step had been made acceptable to public opinion by the leaders of certain craft unions, who had abandoned the revolutionary and financially unsound policies of earlier trade unions to pursue the limited practical objectives of securing for their members better wages and improved working conditions.

After 1880 the organisation of unskilled workers became more extensive and effective and the whole tone of trade unionism became more militant and political, while employers began to form associations in an increasing number of industries. Partly as a result of continuing antagonisms and of the changing and difficult economic situation, much of the first thirty years of the twentieth century was marked by widespread and prolonged strikes. Since 1932, however, the strike rate (in terms of man-days lost) has, in most years, been very much lower, and arrangements for the negotiation of terms of service and the peaceful settlement of disputes have become general and are on the whole satisfactory.

This improvement in industrial relations has been achieved mainly by voluntary action. There is, in general, no legal obligation on an employer to recognise a trade union, or not to refuse to employ trade unionists; nor is a collective agreement with a

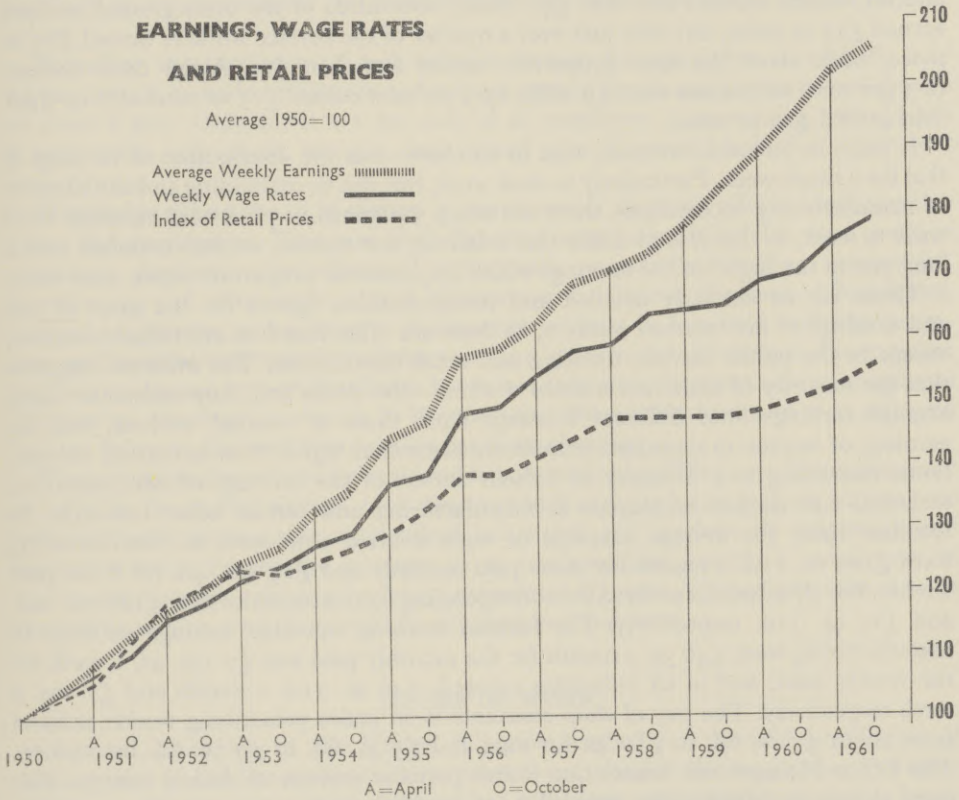
The survey does not cover agriculture, coalmining, railways, dock work, shipping, distribution, catering or other services. In agriculture the average weekly earnings for regular adult male workers were £11 4s. 1d. in the half-year April 1961 to September 1961; in coalmining, the average weekly cash earnings for men were £17 3s. 3d. plus 19s. 3d. in kind in October 1961; in the railway services average weekly earnings in March 1961 were £14 8s. for men in the wage-earning grades, including the workshop grades, and £7 9s. for women; average weekly earnings of dock workers registered with the National Dock Labour Board from July to September 1961 were £15 11s. 1d.

Since 1947 average weekly wage rates have increased by about 101 per cent and average weekly earnings by about 140 per cent. Most of the increase in wage rates has been offset by a rise in the cost of living. The trends of manual workers' earnings, and of wage rates and retail prices from 1950 to 1961 are shown in the diagram below.

**EARNINGS, WAGE RATES
AND RETAIL PRICES**

Average 1950=100

- Average Weekly Earnings
- Weekly Wage Rates
- Index of Retail Prices



Women in industry are for the most part engaged on different tasks from men and are paid less than men on the grounds that these tasks are unskilled or semi-skilled. In the relatively few instances in the field of manual employment where men and women are employed on precisely the same work and under identical conditions, collective agreements frequently provide for equal remuneration.

Information about the spread of earnings of manual workers, i.e. the proportion of manual workers with weekly earnings within certain ranges, has become available for the first time since 1938 as the result of a special inquiry made by the Ministry of Labour as part of its survey of earnings in the second pay-week of October 1960.

This survey covered establishments not only in manufacturing but also in mining (other than coalmining), construction, gas, electricity and water supply, transport other than rail transport, public administration, laundries and cleaners, garages and shoe repairers. It is estimated that returns received relate to about four-fifths of the full-time adult manual workers in manufacturing and probably to about two-thirds in the other industries surveyed. Corresponding figures for coalminers, dock and agricultural workers have been compiled by the National Coal Board, the National Dock Labour Board and the Ministry of Agriculture, Fisheries and Food.

In all the industries surveyed by the Ministry of Labour, 3.6 per cent of the men earned less than £9 and 42 per cent earned £15 or over; in manufacturing industries alone, 3.1 per cent earned less than £9, and 48 per cent £15 or over; in the non-manufacturing industries covered, 4.8 per cent earned less than £9 and 28 per cent £15 or more. In coalmining no full-time workers underground earned less than £10 and no surface workers less than £9. Nearly two-thirds of the underground workers earned £15 or more, but only just over a quarter of the surface workers earned £15 or more, while about the same proportion earned less than £10. A few dock workers (2.3 per cent) earned less than £9 while 65.5 per cent earned £15 or more and 19.5 per cent earned £23 or more.

It must be stressed, however, that in all these cases the distribution of earnings is that for a single week. Particularly in dock work, but also in coalmining and in a number of manufacturing occupations, there are sharp variations in piecework earnings from week to week, so that it is probable that relatively few manual workers maintain over a long period the high level of earnings which a substantial proportion attain each week.

There are no similarly detailed and comprehensive figures for the rates of pay and earnings of non-manual workers, as these are often based on individual contracts, except in the public service, teaching and retail distribution. The evidence suggests that the majority of male non-manual workers—the clerks and shop assistants—have average earnings little different in range from those of manual workers, but the earnings of women in these occupations are somewhat higher than in manual occupations. According to a Ministry of Labour survey of the earnings of administrative, technical and clerical employees in manufacturing and certain other industries in October 1961, the average earnings of male salaried employees in manufacturing were £109 os. 11d. a month for those paid monthly and £15 14s. 4d. for those paid weekly. For all industries covered the corresponding figures for males were £106 12s. 10d. and £15 9s. 11d. respectively. For females working full-time, average earnings in manufacturing were £46 3s. a month for the monthly paid and £7 15s. 2d. a week for the weekly paid; and in all industries covered, £46 9s. 11d. a month and £7 17s. a week respectively. The pay of shop assistants is on scales prescribing weekly minima from about £7 8s. 6d. to £10 4s. for men and £5 4s. 6d. to £7 7s. 6d. for women. The Office Management Association makes periodic surveys of clerical salaries. The latest survey, of March 1960, covered 1,112 establishments, employing 87,011 clerks, and showed that the average weekly salaries for young inexperienced clerks ranged mainly from 76s. to 120s. for youths and from 66s. to 101s. for girls, while average salaries for adult male clerks ranged from £9 12s. for the lowest grade of skill and responsibility (normally filled by juniors) to from £12 6s. to £16 19s. for the three highest grades. Corresponding women's salaries were 25 to 30 per cent less.

The starting salaries in many professional and technical careers are often in the range of £500 to £700 a year, though they may be lower for trainees starting work in their teens, and higher for some graduates entering industry and the Civil Service. Such posts offer incremental progression to higher salaries and opportunities for

promotion. According to an investigation carried out by the Central Office of Information Social Survey in 1955-56 (but referring to the previous year) and published in the report of the Royal Commission on Doctors' and Dentists' Remuneration, the average (median) annual remuneration of qualified people ranged from £1,600 to £2,000 in the leading professions. It is probably now from 15 to 30 per cent more.

Most of the senior posts in business, the professions and the Civil Service are in the range of £1,700 to £7,000 a year. The posts with salaries of £5,000 to £12,000 a year include those of Cabinet Ministers, most chairmen and full-time members of boards of nationalised industries, judges of the High Court and Court of Appeal, and Lords of Appeal, the Permanent Secretaries of Government departments, the clerks of the largest municipal authorities, editors of daily newspapers, some persons outstanding in their professions and in the higher managerial posts in industry, commerce and banking. A few persons in business draw still higher salaries, while the earnings of star entertainers and certain other very successful people exceed £25,000 a year.

Regarding the incidence of such salaries, it may be noted that in 1959-60 only 12 per cent of all male employees and 1.8 per cent of female employees earned £1,000 or more a year. Only about 1.1 per cent of all employees were earning over £2,000 a year, while only about 0.4 per cent earned over £3,000 and about 0.1 per cent over £5,000.

Women have the same right of entry as men to nearly all public offices, administrative posts and professions. They are paid the same salary for doing the same work in medicine, dentistry, physiotherapy, radiography, university teaching, journalism, broadcasting and architecture, and as Ministers of the Crown, members of Parliament, salaried magistrates and solicitors, pharmacists working in hospitals, and administrative, professional and technical workers in local government. Women in independent professions are not expected to charge lower fees than men. In many other non-manual occupations, however, a woman in Britain doing the same job as a man is still paid less for doing it, although the position has been changing.

The principle of equal pay for male and female salaried staff began to be implemented in 1955 in the public service, including national and local government service, the national health service, the nationalised industries, and teachers in maintained and assisted schools. Progressive increases in women's salaries resulted in most cases in men's and women's salary scales being assimilated by 1961. Women's salaries outside the public service are being similarly adjusted in some cases.

HOURS OF WORK

National legislation in the United Kingdom embodies a general prohibition of employment of children under thirteen years of age; forbids the employment of older children and women in certain occupations; and limits and defines permissible hours of work for women and young persons in a number of industries or trades. Children aged thirteen to fifteen may not be employed during school hours or before 6 a.m. or after 8 p.m. on any day, or for more than two hours on school days or on Sundays. This part-time employment is regulated in various ways by statute and by by-laws made by local authorities.

The Shops Act, 1950, makes local authorities responsible for ensuring that the shops in their area observe its requirements. With certain exceptions, shops must be closed on weekdays by 8 p.m. (9 p.m. on one late day) except on the early closing day when they must be closed by 1 p.m., and all day on Sunday; but local authorities may make

orders modifying these and other provisions of the Act within their own area. The hours of work of shop employees under sixteen years of age are normally restricted to 44 a week, and those of employees between sixteen and eighteen years of age to 48 a week, with limited provision for overtime. Broadly speaking, all shop assistants must be given a half-holiday (half a day) every week and, in addition, every Sunday off or another day off instead.

In premises under the Factories Act the working hours of women and young persons between the ages of sixteen and eighteen are generally limited to 48 a week and nine a day, although some overtime is allowed (up to six hours a week but not more than 100 hours a year or in more than 25 weeks in a year). Young persons under sixteen years of age are limited to 44 hours a week. Adequate intervals for meals must be arranged for women and young persons and the employment of women and young girls at night is, in general, prohibited.

In mines and quarries, women and young persons under eighteen may not normally start work before 6 a.m. and must never start before 5 a.m. Their work must normally end before 9 p.m., in the case of young persons under sixteen, and before 10 p.m., in the case of women and young persons aged sixteen to eighteen; and never in any case after 11 p.m.

The Young Persons (Employment) Act, 1938, imposes restrictions on the hours of work of young persons (48 a week at the age of sixteen years and over and 44 for those under sixteen years) in certain occupations not covered by the Factories Act, the Mines and Quarries Act, 1954, or the Shops Act, 1950.

While the hours of work of adult men are not, in general, restricted by statute, normal hours of work for both sexes and those of all ages are usually well within the legal limits on the hours of women and young persons. Agreed weekly hours, in which substantial reductions have been negotiated in many cases within the past two years, are mainly 42 to 44, and may be worked as either a five-day or a five-and-a-half-day week according to the industry and the rule of the particular establishment. Hours actually worked by men are somewhat longer owing to overtime working. The survey conducted by the Ministry of Labour in October 1961 into earnings and hours of manual workers showed that average weekly hours actually worked were as follows:

Men	..	..	..	..	..	..	..	47.4 hours
Youths and boys	..	..	..	..	..	..	..	43.6 hours
Women: full-time	..	..	..	..	..	..	..	39.7 hours
part-time	..	..	..	..	..	..	..	21.8 hours
Girls	..	..	..	..	..	..	..	40.6 hours

Holidays with Pay

With a few exceptions, manual workers (including shop assistants) in industries covered by agreements or statutory orders are entitled to paid holidays of twelve days or two weeks. Moreover, payment is made for bank or statutory public holidays, which are as follows: in addition to Good Friday and Christmas Day, there are Bank Holidays in England, Wales, and the Channel Islands on Easter Monday, Whit-Monday, the first Monday in August and the first weekday after Christmas (Boxing Day), and in Scotland on New Year's Day, the first Monday in May, and the first Monday in August. Northern Ireland observes all the English holidays and, in addition, has a Bank Holiday on St. Patrick's Day, 17th March, and a statutory public holiday on 12th July (commemorating the Battle of the Boyne, 1690); Easter Tuesday is also

a customary holiday for industry and trade. Many agreements provide that payments should also be made for specially proclaimed holidays.

In some industries there are also agreements on extended holidays related to length of service. In addition, numerous firms have long-service extended holiday schemes which apply to both staff and manual workers.

SAFETY

Employers have a duty at common law to take reasonable care of their employees and provide a safe system of working, while employees have a duty of care towards each other. In addition, minimum required standards of safety in certain kinds of workplace or work are laid down under a number of statutes, some of which also deal with health and welfare. The statutes include: the Factories Act, 1961 (which consolidates earlier Acts); the Mines and Quarries Act, 1954; the Shops Act, 1950; and the Agriculture (Safety, Health and Welfare Provisions) Act, 1956.

Fatal and serious industrial accidents have tended to diminish during the twentieth century, and the rates for fatal and serious accidents are among the lowest in the world. There were, however, disturbing increases during 1959 and 1960 but the upward trend of accidents on industrial premises was checked in 1961.

Factories and Industrial Premises

Over 200,000 industrial premises (factories, workshops, slaughter-houses, shipyards, docks and warehouses) and about 25,000 building and civil engineering sites come under the Factories Act, which is administered by the Ministry of Labour and enforced by H.M. Inspectorate of Factories, which forms part of the Ministry. The total strength of the Factory Inspectorate, including medical and other specialists, was 426 in December 1961 and its authorised strength is 480.

Under the Act any person intending to use premises as a factory has to notify H.M. District Inspector of Factories of his intention not less than one month before he begins to occupy them and every fatal accident and every accident causing more than three days' incapacity must be reported to the factory inspectors; provision is also made for compulsory notification and for investigation of certain dangerous occurrences and, in addition, a number of general and specific safety requirements are laid down.

The general requirements include provisions concerning the fencing of prime movers, transmission machinery and dangerous parts of other machinery; the sale, hire or use of power-driven machinery without effective guards of certain parts; the cleaning of machinery in motion; the training and supervision of young persons employed at certain machines; the examination of hoists and lifting equipment, steam boilers and steam and air receivers; the construction of floors; precautions against falls, against gassing, and against explosions of flammable dust or gas; fire prevention, fire-fighting, fire alarms and means of escape in case of fire; the protection of the eyes; precautions where dangerous substances are present; and the lifting of heavy weights.

These general requirements are supplemented or modified by regulations providing for safeguards against special risks in particular industries, processes, and types of machinery.

Safety depends in fact at least as much on the education and voluntary efforts of the employers and of the workers as upon safety regulations. In addition to regulatory functions, the Minister of Labour since 1959 has had the duty of promoting safety, health and welfare by the collection and dissemination of information and by investigating safety, health and welfare problems—activities which had, in fact, long been an

important part of the Ministry's work. The Accident Prevention Movement, a voluntary educational campaign, is strongly supported by the Factory Inspectorate. Inspectors inquire into safety aspects of machine design and specification, circulate expert advice by personal exhortation, lectures and literature, and encourage the appointment of safety officers and the formation of works safety committees.

The concern of both trade unions and employers' associations with safety helps to maintain safety standards, and the requirements about accident notification help inspectors to examine the means of prevention with employers, machinery manufacturers and interested organisations. But the voluntary co-operation of managements and employees in individual workplaces is essential to the safety drive.

Many firms have works safety committees and, in many areas, safety groups have been organised, whose members meet monthly for the exchange of information, discussion, lectures and films on safety measures.

Training for safety is an important facet of the safety drive and, to help in this work, the Ministry of Labour has recently incorporated a safety course in the Training Within Industry for Supervisors (TWI) scheme (see p. 453). An industrial health and safety centre in London is also maintained by the Ministry. An industrial safety training centre in Birmingham is run by the Birmingham and District Industrial Safety Group, and training centres for building and civil engineering foremen have recently been set up, with the assistance of the Ministry of Labour, by the local accident prevention groups at Enfield (London), Aintree (Liverpool) and Granton (Edinburgh) and the Federation of Civil Engineering Contractors at Cardiff. The Royal Society for the Prevention of Accidents helps the Accident Prevention Movement by providing publicity and by organising conferences and courses for safety officers.

Organisations in industry are now concerning themselves to an increasing extent with the promotion of safety at work and the provision of information and advisory services to their members. They participate also in joint standing and advisory committees appointed by the Minister of Labour. Representatives of the Trades Union Congress, the British Employers' Confederation, the nationalised industries and the Ministry of Labour meet on the Industrial Safety Sub-Committee of the National Joint Advisory Council. The Minister of Labour has established a joint advisory committee, representative of employers and workers in the building and civil engineering industries, to examine safety and health problems in these industries.

Mines and Quarries

The safety of workers in mines and quarries is the subject of comprehensive legislation which also deals with health and welfare at work and a number of related matters. Protective legislation in mines began with an Act of 1842, which forbade the employment of women underground; successive measures laid down detailed requirements for the safe conduct of operations and dealt with such matters as ventilation, dust suppression, support of workings, the safe use of electricity, rescue and first aid. The latest stage was reached when the Mines and Quarries Act was passed in 1954. This Act established the basic modern principles of safety, health and welfare, leaving the details to be dealt with in statutory regulations; it both consolidates the previous law and brings it up to date. Apart from technical matters, it also covers such subjects as the general responsibilities of owners and managements, the appointment and duties of officials, training, welfare, the powers of official inspectors, statutory qualifications of managers and under-managers, employment of women and young persons, and inspections on behalf of workmen.

The Ministry of Power is responsible for the administration of these enactments, while the Mines and Quarries Inspectorate, which is part of the Ministry of Power, is responsible for their enforcement.

The National Coal Board is expressly charged with the statutory duty of securing the safety, health and welfare of its employees and has set itself to accomplish this in all practicable ways. The Board has its own safety organisation—a Standing Committee on Safety, a chief safety engineer, and safety engineers at divisions, areas and the largest collieries. It conducts courses of safety training for workmen and officials and is constantly on the alert for new methods of reducing risks. Its research programme includes a number of projects with a direct bearing on safety. Examples of voluntary action by the Board to reduce risks include the use of fire-resistant conveyor belting, and the withdrawal of light alloy equipment from the coal face pending the development of an alloy unlikely to cause dangerous sparks.

The Ministry of Power maintains a Safety in Mines Research Establishment, with stations at Buxton and Sheffield, which carry out research into safety problems in co-operation with the Mines and Quarries Inspectorate and the National Coal Board's research organisation.

Agriculture

Two Acts provide for the protection of agricultural workers by means of regulations made by the Ministers concerned with agriculture in Britain. The risks involved in the use of chemicals are dealt with in the Agriculture (Poisonous Substances) Act, 1952; other risks are covered by the Agriculture (Safety, Health and Welfare Provisions) Act, 1956. Regulations have been made dealing with the safe use of dangerous chemicals, the provision of first-aid equipment, safety standards for workplaces and ladders, the safeguarding and safe operation of farm machinery, the lifting of heavy weights and the avoidance of accidents to children arising out of the use of farm vehicles and machines. Regulations are enforced by inspectors of the Agricultural Departments. To safeguard the many interests which might be adversely affected by the use of chemicals in agriculture and food storage, a voluntary scheme is operated by the Government with the help of an advisory committee and with the full co-operation of the chemical industry.

Transport

The general safety legislation covering the main forms of transport protects transport workers as well as members of the public against accidents involving moving vehicles.

The Minister of Transport is responsible for the administration of the Merchant Shipping Acts, which cover in great detail the question of marine safety, including navigational procedures, the strength and design of hulls, the safety of machinery, the safety and design of living quarters, life-saving appliances, measures for protection against fire, and the carriage of special cargoes and dangerous goods.

The Air Navigation Order and Regulations provide for the registration of aircraft and for the issue of certificates of airworthiness and of competency certificates and licences for aircrew, lay down requirements for safety equipment and for safety procedures during take-off, flight and landing, and prescribe maintenance schedules for public transport aircraft. The Minister of Aviation delegates most of his powers in respect of airworthiness to the Air Registration Board (see p. 389).

The Minister of Transport exercises technical supervision of the safety aspects of railway construction and operation through an inspectorate, whose main functions are

statutory approval of new works on railways carrying passenger traffic; accident investigation, including the holding of formal inquiries; and technical advice to the Minister.

In the interests of road safety, the hours of driving and the rest periods of drivers of buses and goods vehicles are regulated by the Road Traffic Acts. In certain cases, the driver must be accompanied by a second person.

In addition to general safety legislation, there are certain statutory provisions concerned entirely, or mainly, with the safety of employees; for example, railway employees are protected by the Railway Employment (Prevention of Accidents) Act, 1900, and the statutory rules and orders made under it which enable the Ministry of Transport to require the use of safe plant and appliances, to forbid what is unsafe, and to make rules for safe railway operation. This Act also sanctioned the employment of inspectors, now known as Railway Employment Inspectors, who inquire into the more serious accidents to railway employees.

Both transport operators and the Ministries of Transport and of Aviation give high priority to safety measures affecting crews and passengers. Every endeavour is made to counter the higher risks resulting from rising traffic densities, by improving the design of vehicles, transport plant and equipment, by traffic regulation and control of standards of maintenance and by training crews in competency and safety awareness. The detailed regulations and instructions issued by the ministries and their agents form the basis of elaborate safety procedures laid down by the operators themselves and by the makers of vehicles and aircraft, equipment and works. The radio industry and the transport services co-operate in the development and application of radar systems and other safety devices (see p. 390).

Other Work Premises

There are at present (September 1962) no specific statutory safety requirements in offices, shops, hotels and restaurants, places of entertainment or educational establishments apart from the fire regulations applicable under local authority by-laws to all large buildings. The employers, however, are bound by their common law obligation to provide a safe system of work, and employers and educational authorities may voluntarily seek the advice of the Factory Inspectorate if they have occasion to install power-driven machinery or deal with any other special risk.

Under the Offices Act, 1960, whose provisions were due to come into force on 1st January, 1962, the Secretary of State for the Home Department is empowered to make regulations specifying the standards to be applied in offices to protect the safety, health and welfare of the employees. The Home Secretary, however, is not exercising his powers and the Government has announced its intention of introducing shortly more comprehensive legislation to supersede this Act.

HEALTH AND WELFARE

Local authorities, under the Public Health Acts, have power to regulate the provision of suitable sanitary accommodation in houses and at places of work and to treat workplaces which are dirty or badly ventilated or overcrowded as nuisances the abatement of which can be enforced. They are also responsible under the Shops Act, 1950, for seeing that shops in their area observe the requirements of the Act, which include, besides a number of provisions relating to closing hours and to hours of work of young employees (see p. 461), maintenance of reasonable minimum standards of ventilation, temperature, lighting, sanitary accommodation and washing facilities.

Factories and other industrial premises must comply with the health and welfare requirements of the Factories Act. These include: with regard to health, the cleanliness of workrooms, adequate ventilation and suitable temperature and lighting, the avoidance of overcrowding and the provision of sanitary accommodation, and the protection of workers against inhaling harmful dust or fumes; with regard to welfare, the provision of washing facilities, lockers or other accommodation for outdoor clothing, drinking water, first aid, and adequate seating arrangements. All young persons under eighteen years of age must, on entry into employment in factories and docks, or on building operations, be medically examined by doctors appointed by the Chief Inspector of Factories and known as Appointed Factory Doctors, and they must be re-examined annually until they reach the age of eighteen. Boys employed in certain jobs involving night work are examined more frequently.

The general requirements of the Factories Act in regard to health and welfare are supplemented by regulations, some of general application, others providing for the needs of particular industries or processes. They may include provision for compulsory periodic medical examinations.

The far-reaching and detailed requirements of the Merchant Shipping Acts and the regulations made thereunder include specific provisions for the protection of merchant seamen, covering such matters as the engagement and discharge of seamen, limitations on the employment of young persons at sea, standards of crew accommodation, scales of provisions, medicines and medical stores, and the care and repatriation of seamen left behind at ports abroad.

The laws restricting the employment of children, young persons and women form an important part of legislation to protect the health and welfare of employees. National legislation, besides forbidding any employment of children under thirteen years of age, forbids the employment of children under fifteen years of age in any industrial undertaking; of women and young persons under sixteen years of age underground in mines and in certain other dangerous occupations (for example, those involving work with lead compounds); and of women in factories and workshops within one month of childbirth. It also limits and defines the permissible hours for children aged thirteen to fifteen and for young persons under eighteen and women in a number of industries and occupations. Local authorities, moreover, have wide powers under the Children and Young Persons Act, 1933, as well as by the Education Acts, 1944-48, which regulate hours and conditions of employment of children under fifteen years within their areas within the limits of national legislation.

The above are the main legislative provisions relating to health and welfare at work, but it is essential to note that employers frequently achieve health and welfare standards considerably higher than those prescribed by law. They are helped to do this by the inspectorates, by Government departments and agencies, by employers' associations and trade unions and by expert voluntary bodies.

An increasing number of firms in Britain provide a canteen with hot meals, pay part or all of the cost of clubs and sports grounds, operate retirement and sickness insurance schemes supplementing the State insurance schemes, and afford training and educational facilities. Some have their own rehabilitation centres or support convalescent homes.

Industrial Health Services

In addition to the statutory requirements of the Factories Act, 1961, and Regulations, a number of employers voluntarily maintain medical services for their employees. It is estimated that there are about 400 full-time and 4,000 part-time doctors employed in

factories, together with several thousand nurses and assistant nurses. There are also the 2,200 Appointed Factory Doctors who carry out the compulsory medical examinations under the Acts and Regulations.

The big employers, including the State and the boards of nationalised industries, have naturally taken the lead in this expansion. A number of smaller factories also provide medical services and in some cases (for instance, in Slough and Harlow) have joined together in group medical schemes. There are, however, difficult problems to be solved in connection with the further development of industrial health services, and in 1955 the Minister of Labour appointed a Standing Industrial Health Advisory Committee, of which he is the chairman, to advise him on this subject. The membership of this committee includes persons nominated by the British Employers' Confederation, the Trades Union Congress, the nationalised industries, the British Medical Association, the Royal College of Nursing and other organisations and bodies closely concerned with the promotion of industrial health. In connection with its consideration of the possibilities of developing and extending medical supervision in factories, the committee has advised on the conduct of two pilot surveys, one in the town of Halifax and one of the pottery industry in Stoke on Trent, and has approved the issue of a booklet, *Health at Work*, describing fourteen individual medical schemes in factories in different parts of Great Britain.

Industrial hygiene services can give valuable assistance in securing healthy working conditions in industry; there are at present three centres in Great Britain which undertake studies of factory conditions. They are staffed and equipped to make comprehensive investigations of particular problems or health risks and also carry out routine physical, chemical and biological tests for industry.

Prompt and effective action in industrial health depends, among other things, on adequate and properly co-ordinated arrangements for investigation and research. Field investigations are carried out by the Factory Inspectorate, which has specialised medical and technical branches. Research facilities are provided by Government agencies such as the Medical Research Council and the Department of Scientific and Industrial Research; by the faculties of industrial health and social medicine of the universities; and by the research departments of various industries and large industrial concerns.

Welfare

Welfare standards vary considerably from one factory to another. The amenities provided by large factories depend partly on the employees' needs and desires. The requirements of a factory where the work is light, and where many employees are women or young persons, are different from those of an iron foundry or steelworks, where much of the work is arduous and is undertaken by men. Progressive firms are careful to find out what their employees want, and welfare policy is often decided in consultation with the workers, through regular consultative machinery or by other means. The National Coal Board, for example, has provided pithead baths and canteens, while other social welfare of coalminers and their families has been, since 1952, the responsibility of the Coal Industry Welfare Organisation, which is controlled by the Board and the miners' trade unions.

During and since the second world war, the provision of meals for workers at their place of work has become usual in large undertakings and quite common in smaller ones. There are also colliery canteens providing meals for about 98 per cent of coalminers. It is customary for any surplus earned by canteens to be used to improve the canteen or to finance some other welfare services, while any losses are borne by the firms.

SAFETY, HEALTH AND WELFARE IN NORTHERN IRELAND

The safety, health and welfare of employees in Northern Ireland have been the subject of legislation which, with certain exceptions, is similar to that in Great Britain and is embodied in separate statutes to meet the special requirements of Northern Ireland. Provision for the safety, health and welfare of workers in factories with and without power, shipyards, electrical stations, certain institutions and at docks, warehouses, building operations and civil engineering works is embodied in the Northern Ireland Factories Acts. Many firms voluntarily employ safety officers, and an Industrial Safety Group for the area, supported by representatives of industry, trade unions, insurance companies and public authorities, is very active and makes a valuable contribution in the field of industrial accident prevention on similar lines to what is done in Great Britain.

INDUSTRIAL RELATIONS

The structure of labour relations in Britain is established mainly on a voluntary basis, and rests on the organisation of employers and workers into employers' associations and trade unions. These organisations¹ discuss and negotiate terms and conditions of employment and other matters affecting the workpeople at their work. In some industries these negotiations are conducted simply by *ad hoc* meetings, which are held when necessary; in others, voluntary joint machinery has been established on a permanent basis. Normally these arrangements for collective bargaining suffice to settle all questions which are raised, but provision is often made for matters not so settled to be referred for settlement to independent arbitration. In certain trades where wages cannot be effectively controlled by voluntary agreement owing to the inadequate organisation of employers or workers, provision has also been made by the State for statutory regulation under the Wages Councils Act, 1959, the Agricultural Wages Act, 1948, and the Agricultural Wages (Scotland) Act, 1949.

Employers' Associations

Many employers in Great Britain are members of employers' associations, which are wholly or partly concerned with labour questions.

The primary aims of such employers' associations are to help to establish suitable terms and conditions of employment, including a sound wage structure and proper standards of safety, health and welfare; to promote good relations with employees and the efficient use of manpower; and to provide means of settling any disputes which may arise. Different associations vary in the emphasis which they put upon these different aims and in the means by which they try to achieve them. Some concentrate on defensive action, trying by negotiation and representations to modify proposals of trade unions and Government in their members' interests. Others also try to give their members practical help and advice in developing positive employment policies. A number of them, for example, have developed training schemes for their industries and some provide advisory services on recruitment, training and further education and general or specialised training courses.

There is diversity in regard to structure as well as function. Generally, however, employers' associations are organised on an industry basis rather than a product basis. Some associations are purely local in character and deal with a section of an industry;

¹ Some employers, including the central Government and the public corporations operating the nationalised industries, negotiate directly with the trade unions representing their different types of employees.

others are national in scope and are concerned with the whole of a particular industry. In some of the chief industries there are local or regional organisations combined into national federations, while in others, within which different firms are engaged on making different principal products, there is a very complex structure with national and regional federations for these different sections of the industry as well as for the industry as a whole. Altogether there are some 1,500 employers' associations dealing with labour matters and about 80 of them are national federations.

The final authority of a local or small national association may be a meeting, where all member firms are directly represented; but in larger organisations some form of indirect representation is necessary, either through local associations or through the regions or sections into which these associations are grouped.

The representatives thus chosen, together with a number of office holders, form a general council, central committee or general committee, which meets perhaps once a quarter, mainly to take major policy decisions, to elect committees and to ratify their work. The committees usually include a general purposes committee and a negotiating committee. A small paid staff under a director or secretary carries out the day-to-day work of the organisation. There is usually a small working group, consisting of senior officials and committee chairmen, which meets to deal with urgent questions and co-ordinate the work of the committees.

The British Employers' Confederation

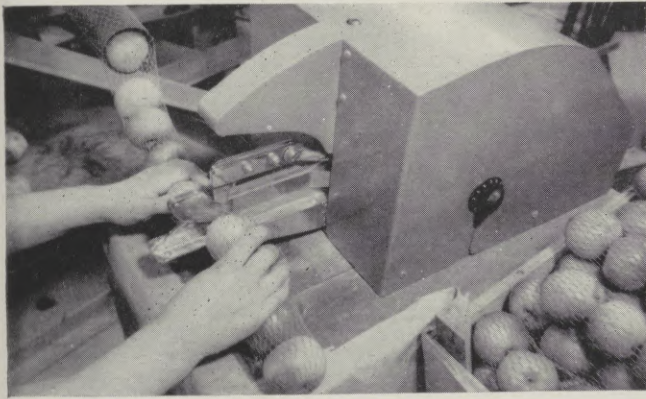
The central organ of employers' associations is the British Employers' Confederation, which was set up in 1919 and was at first called the National Confederation of Employers' Organisations. Its membership now comprises some 52 separate autonomous organisations in industries employing about 70 per cent of the persons engaged in private enterprise industries and services in the country. The boards of nationalised industries are not in membership. The confederation's business is managed by a council which meets under the chairmanship of the President and on which every member organisation is represented.

The confederation deals with matters affecting the interests of organised employers and their relations with their employees and is recognised by the Government as a channel for consultation between Government departments and representatives of private employers as a whole on such matters. It acts as an advisory and consultative body for its member organisations, providing them with information and statistics, ascertaining their collective views and representing them nationally to the Government and the public and also internationally, for instance, on the International Labour Organisation. Its representatives sit on various councils and committees advisory to the Government, on other statutory bodies, and on a number of voluntary bodies.

Trade Unions

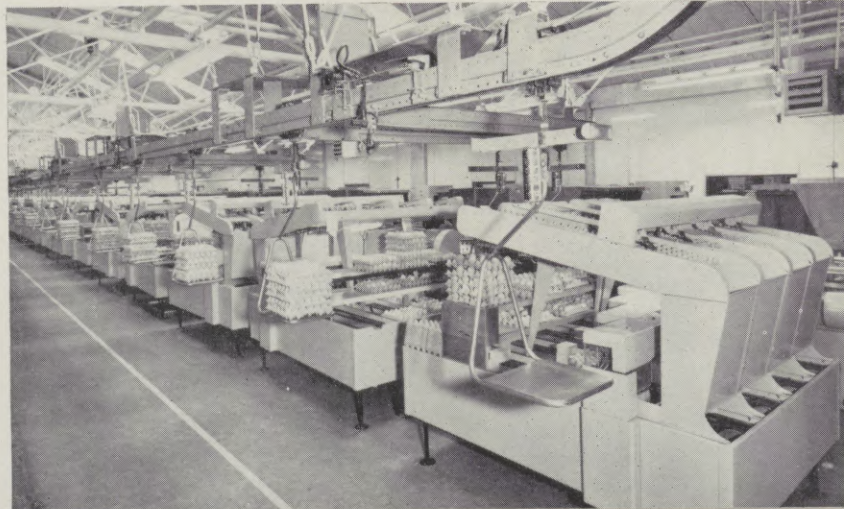
In nearly all industries and occupations some workers—and in some industries nearly all workers—are organised into trade unions. These have grown up gradually and independently over a great many years, and consequently their form and organisation vary considerably. Trade unions started more than two hundred years ago among the skilled craftsmen and spread later to the general labouring and unskilled classes. More recently trade unionism has increased among clerical, supervisory, technical and administrative workers. A number of associations of professional workers, formed primarily for the preservation and improvement of professional standards, have also come to exercise many of the functions of trade unions, including negotiations on salary and fee scales, and are legally trade unions.

Storage of quick-frozen foods,
of which several hundred
varieties are now obtainable.



Packing apples in nylon net, an example
of new retailing techniques.

Britain exports automatic
machinery for grading and
packing eggs.



The BBC's new Television Centre at Shepherd's Bush, London. The studios are grouped round the central circular block housing technical areas, offices and equipment.



A television studio during a rehearsal.



The qualification for membership of some unions is occupational, e.g., they may recruit clerks or fitters wherever employed, while in others the qualification is industrial, i.e. they seek to recruit all persons in an industry, whatever their occupation. In a number of unions recruitment is based on a combination of these principles. A few large unions recruit members in a number of different occupations and industries.

At the end of 1960 the total membership of British trade unions was about 9,803,000. There were 650 trade unions, but about two-thirds of all trade unionists were in the 17 largest unions.

The basic unit of organisation in most British trade unions is the local branch (called a lodge in some trade unions). Every member of the union belongs to a branch or lodge. He may attend its meetings, put forward suggestions about terms and conditions of employment, discuss the work and policy of the union, and take part in the election of branch officers. The branch takes action on certain matters considered to be entirely, or mainly, of local interest but refers wider issues to the union's national or regional bodies.

Many unions also have shop stewards or other representatives at the place of work to enrol members and collect dues, to report any encroachment on agreed or customary conditions of work, and in some cases to act as representatives of members at their place of work for the settlement of grievances. In a few trade unions, mainly in the printing and allied trades, organisation is based primarily on the place of work.

In most large unions the central organisation is along the following lines: elected officials, including a general secretary assisted by clerical and specialist staff, are in charge of the work of the head office and are responsible to a national executive council or committee which may be part-time or full-time, and which is usually elected by, and responsible to, annual or biennial conferences of delegates from the branches.

Executive committees or councils play an important part in the government of the unions; between conferences they are the highest authorities and carry out policy decisions made by delegates.

Most unions also have some regional, district or area organisation, while in large unions there are usually regional, district or area committees or councils.

Trade unions may affiliate to one or more federations or confederations whose main purpose in most cases is to represent all or most of the trade unions in an industry in negotiations with employers. The scope and authority of these federations and confederations vary greatly in different circumstances.

Most trade unions of any size and importance are affiliated to the *Trades Union Congress* (TUC), the national centre of the British trade union movement. The main exceptions are the National and Local Government Officers Association (NALGO), the National Union of Teachers (NUT) and certain Civil Service staff associations. The TUC's objects are to promote the interests of its affiliated organisations and to improve the economic and social conditions of the workers. Its membership comprises 183 organisations, of which about a dozen are federations of some 150 separate unions; approximately 350 unions in all are affiliated directly or indirectly. These represent over 8 million workpeople. The TUC deals with all general questions which concern trade unions both nationally and internationally and gives assistance on questions relating to particular trades or industries at the request of the trade union concerned.

The congress of delegates, which constitutes the TUC proper, meets for a week every year to discuss matters of general interest to trade unionists and to employees generally. It elects annually a General Council which represents it during the remaining 51 weeks of the year. The General Council is responsible for carrying out congress decisions, for watching economic and social developments, and for providing

educational and advisory services. It is also empowered in certain circumstances to mediate in inter-union disputes.

The TUC and a number of affiliated unions have in recent years substantially developed their educational services to members. At the training college in TUC headquarters, Congress House, London, one-week and two-week courses are provided for about 700 students each year in general trade union subjects, production and management subjects, industrial relations, collective bargaining, and social insurance and industrial welfare. The TUC Educational Trust also provides summer schools, regional week-end schools, and special week-end schools for women and for young workers.

Certain unions organise one-week and other short residential courses, and these and other unions provide week-end schools, for the education and training of officers and members in the principles and practice of trade unionism. More than 80 unions arrange education schemes either with the National Council of Labour Colleges or with the Workers' Educational Association, or with both these organisations. Scholarships for longer-term studies (usually one academic year) at Ruskin College, Oxford, other adult residential colleges, or the London School of Economics, are offered by the TUC Educational Trust and by certain unions.

The Trades Union Congress has been critically examining trade union educational facilities and in 1961 approved proposals that will begin to be applied in 1963 and are designed to lead eventually to the disbanding of the National Council of Labour Colleges and the Workers' Educational Trade Union Committee (but not the Workers' Educational Association itself) and their replacement by a co-ordinated educational scheme financed mainly out of increased affiliation fees to the TUC.

The TUC is recognised by the Government as the channel of consultation between the Government departments and representatives of organised workers on matters affecting the interests of employees generally.

There is also a separate Scottish Trades Union Congress, to which trade unions may affiliate in respect of their membership in Scotland.

The TUC is a non-political body, but individual trade unions can, by a ballot vote of members, decide to set up a political fund, financed by a separate levy, which any member can refuse to pay without loss of his normal trade union rights and benefits. About 80 separate trade union organisations, including most of the largest trade unions, have such a fund and, in almost every case, it is used to support the Labour Party (or the Co-operative Party, which is associated with the Labour Party and has substantially the same platform).

Branches of various trade unions in a locality generally affiliate to a local trades council, which acts as a forum for the discussion of matters of common interest and as a local agent of the TUC, by which it is registered each year. There are more than 500 trades councils in England and Wales alone, grouped together in 22 federations.

Voluntary Joint Negotiating Machinery

At National Level. While in some industries all matters affecting terms and conditions of employment are discussed on an *ad hoc* basis between the employers' organisations and the trade unions concerned, in other industries there are standard procedures for dealing with such matters by joint discussion at national level. In many industries there are, for this purpose, bodies composed of representatives of both sides of the industry with, in some cases, an independent chairman. There are about 200 of these bodies, most of which are called Joint Industrial Councils. Their functions vary considerably, some being simply negotiating bodies, while others deal with a wide

range of subjects affecting the interests of the industry concerned. Provision is sometimes made in their constitution that a dispute on which it is not found possible to reach agreement should be referred to some form of conciliation or arbitration by independent persons, including the means provided under the Conciliation Act, 1896, or the Industrial Courts Act, 1919.

Collective agreements between employers' associations and trade unions are not civil contracts between particular employers and employees, and are not, therefore, in themselves enforceable at law. Observance of agreed terms and conditions is based mainly on the good faith of employers and the mutual respect and vigilance of trade unions and employers' associations, but can be secured in particular instances through reference to the Industrial Court (see p. 474).

At District and Factory Level. Arrangements for negotiation and joint consultation also exist at district and factory level in many industries, where matters are discussed either between the appropriate representatives of the two sides on an *ad hoc* basis, or through regular machinery provided by District Joint Industrial Councils or similar bodies and Works Councils. Such bodies discuss how agreements reached at a national level may be applied to their district or factory, but as a rule have no power to alter the terms of such national agreements. They also discuss new problems which may arise, and if no solution can be found at factory or district level, refer them to the national body. In many of the larger industries national agreements recommend such consultation, and in some they even prescribe model rules for its conduct.

Statutory Wage-Regulating Machinery

In certain industries in which, owing to the lack of organisation among employers and workers, voluntary negotiating arrangements do not exist for the effective settlement of terms and conditions of employment or are inadequate to secure their observance by voluntary methods throughout the industry, statutory bodies known as Wages Councils and Agricultural Wages Boards have been set up. These are composed of equal numbers of representatives of employers and workers in the respective industries, with the addition of certain independent members. Wages Councils may submit proposals for fixing minimum remuneration and holidays with pay to the Minister of Labour, who must then make orders giving statutory force to such proposals, subject only to his right to return them as a whole to the council for further consideration.

Orders relating to employment in agriculture are made by the appropriate Agricultural Wages Board (England and Wales or Scotland). Such orders are effective only in the county agricultural wages committee area in respect of which they have been made, but there is a national minimum enforceable in England and Wales and also one for Scotland.

State Provision for Conciliation, Arbitration and Investigation

Matters which prove difficult to settle by negotiation are sometimes referred by agreement to independent conciliators or arbitrators, and one way in which the parties can find such persons is by invoking the help of the Minister of Labour. Under authority derived from the Conciliation Act, 1896, and the Industrial Courts Act, 1919, the Minister has certain powers to assist industry to settle disputes which it is not found possible to resolve through an industry's own machinery and procedure. These powers are all intended to supplement and not to supersede the industry's own machinery. There is no legal obligation on the parties to a dispute to notify the dispute to the Minister, nor to place the question before a conciliator.

To assist conciliation in industry, a staff of conciliation officers long formed part of the Ministry of Labour. The duties of these officers were to keep in touch with the course of relations between employers and workers at national, district, and, in some cases, factory level, and to assist them, if requested, to settle their problems by joint discussion and negotiation. Conciliators have no legal powers. In 1960 this service and the Ministry's personnel management advisory service (see p. 477) were merged to form an integrated industrial relations service.

Disputes which cannot be settled in this way may, at the request of both parties, be referred to voluntary arbitration, either by a single arbitrator, or an *ad hoc* Board of Arbitration, or by the Industrial Court, a permanent tribunal established under the Industrial Courts Act. The court normally consists of three members—the president, one member experienced in representing employers and one in representing workpeople.

Like collective agreements, arbitration awards are not in themselves enforceable at law, but, under the Terms and Conditions of Employment Act, 1959, reports that a particular employer is not observing the recognised (i.e. agreed or awarded) terms or conditions of employment in his trade or industry may be made to the Minister of Labour by organisations which are parties to the agreement or award. If the matter is not otherwise settled, the Minister must refer it to the Industrial Court which, after hearing the case, may issue an award requiring the employer to observe the recognised terms or conditions. Such an award becomes an implied term of the contract of employment. This procedure, established under the 1959 Act, replaced an earlier one of similar intention and effect.

The Minister of Labour is also empowered to appoint a Court of Inquiry or Committee of Investigation into a dispute, whether existing or apprehended. These procedures are primarily means of informing public opinion of the facts of a dispute and are not means of arbitration. The report of a Court of Inquiry has to be laid before Parliament. Although the recommendations contained in the reports of such bodies are not binding on the parties, they often provide the basis for further negotiations which lead to a settlement.

Strikes and Lockouts

In general, the arrangements for negotiation and conciliation of disputes are effective in making resort to direct action unnecessary. For example, in the twelve months ending in December 1961 about 180 important claims for increased wages or shorter hours, covering almost every industry, were settled peacefully, while less than 10 claims resulted in disputes which gave rise to stoppages of work.

The amount of working time lost in strikes and lockouts has been much less in the past three decades than formerly. The average time lost per year in Great Britain from 1933 to 1961 inclusive has been 2.8 million man-days (or about one-eighth of a day per employee per year), compared with an average of 21 million man-days in the 23 years 1910 to 1932. It must be noted, however, that the reduction has been in the size and duration of strikes and not in their number; also that in the last six years the number of man-days lost has been appreciably higher than in the previous 22, and that the figures do not include employees laid off at establishments not on strike. The great majority of the stoppages in recent years have been in breach of the constitutional procedures in the industry and have been 'unofficial' in the sense that they have not been supported by the national executives of the unions concerned. Over half the total time lost as a result of stoppages in 1960 and 1961 was lost in four industries (coalmining, docks, motor manufacture and shipbuilding) which employ only 7 per cent of the working population. The time lost through stoppages is, however, still low,

when every allowance has been made. For 1961 it worked out at a little over three hours per year per worker in the productive and transport industries (in which most of the stoppages occur), which is insignificant when compared with the average of 13 days per employee lost through sickness and accidents. The record also compares favourably with that of many other major industrial countries.

Liaison between the Government and Industry

The Government is in contact with representatives of employers and workers at all levels on matters affecting their common interests. At local and district level the industrial relations officers of the Ministry of Labour keep in touch with the representatives of both sides of industry, while, at national level, officers of the department are requested by many Joint Industrial Councils to attend their meetings as liaison officers. Standing arrangements also exist for consultation between the Government, the British Employers' Confederation and the Trades Union Congress through the National Joint Advisory Council, which was set up in 1939 to advise the Government on matters in which employers and workers have a common interest. It meets quarterly under the chairmanship of the Minister of Labour. Its membership consists of representatives of the British Employers' Confederation and the Trades Union Congress, together with representatives of the managements of nationalised industries. Among the subjects which it has considered in recent years are the machinery for settling industrial disputes, joint consultation in industry, redundancy, communications, the efficient use of manpower, restrictive practices, the selection and training of supervisors and the training of shop stewards.

Labour Relations of Public Authorities

While labour relations in Government service and in the nationalised industries are, in general, organised on the same principles as in private industry, there are some special features.

Non-industrial employees in central Government service, where salaries and conditions of service are under the direct control of the Treasury, are permitted and encouraged to join the appropriate Civil Service staff associations (trade unions) and there is a highly developed system of negotiation and joint consultation by means of the National and Departmental Whitley Councils (see p. 69), corresponding to the Joint Industrial Councils in industry. The two sides of the National Whitley Council are parties to a Civil Service Arbitration Agreement which, subject to certain limitations, provides that if there is failure to reach agreement by negotiation a department or association may report the dispute to the Minister of Labour for reference to the Civil Service Arbitration Tribunal. The tribunal is an independent one appointed by the Minister by virtue of his powers under the Industrial Courts Act, 1919. Industrial employees of the central Government, however, are organised by trades and not by departments; negotiations regarding their wages and conditions of employment take place on Trade Joint Councils and Departmental Joint Councils.

In local government services there are separate National Joint Councils for the main grades of employees (such as manual, clerical and technical employees, and road-menders) which deal with wages and conditions of service as well as other matters. There are corresponding regional and district councils.

In the nationalised industries, the main corporations, though not subject to detailed governmental control, have a statutory duty to establish satisfactory arrangements for collective bargaining in their industries and for joint consultation with their employees; but in carrying out these duties they are free to choose the arrangements that suit them.

In nearly every case a complex system which already existed before nationalisation has been taken over and modified. The arrangements, therefore, as in industry generally, vary substantially. The main difference from private industry is that the corporations are not usually members of employers' associations. In some industries they are sole or main employers, but even where part of the industry is in private hands, as for example in air or road transport, the corporations are separately and directly represented on wage-negotiating bodies.

Wages and conditions of service in the nationalised industries are generally settled by negotiation between representatives of managements and trade unions at the national level; in most cases there are also regional and local bodies, similarly representative, charged with the duty of applying these agreements and dealing with any difficulties or differences which may arise. Most of the industries use the facilities for arbitration offered to industry generally by the Ministry of Labour, but coalmining and rail transport have their own special arrangements.

The machinery for negotiation and conciliation in the United Kingdom is usually agreed by and based on the industry as a whole and not on the individual establishment or firm. Accordingly, those industries, such as electricity or gas supply, where there are several corporations which act as employers, are covered by a single set of arrangements for each industry, and the duty of seeing that the arrangements are made falls on the central authorities, e.g., the Gas Council or the Electricity Council. In civil aviation, there is a single joint council at national level on which both the nationalised air corporations and the private operators are represented. Where a single public corporation engages in various activities, these may be treated as separate industries and organised separately. For example, the National Coal Board's coke and by-products plants have arrangements quite distinct from the coal mines, and the British Transport Commission's rail, road and water transport have their different methods based on individual traditions which existed before nationalisation. In road passenger transport (unlike civil aviation) the arrangements cover only the commission's employees; there is separate machinery for the employees of municipal and private undertakings.

Some of the nationalised industries have felt that joint consultation was best carried out by their negotiating bodies; others have established separate and specially constituted joint committees at all levels. In general, where consultation and negotiation are conducted through the same machinery, separate committees exist for different groups or grades of employees; where the consultative and negotiating arrangements are kept apart, a single consultative committee serves all grades.

Northern Ireland

The system of labour relations in Northern Ireland is based on the same principles as that of Great Britain and, in these matters, the Minister of Labour and National Insurance has powers and duties broadly similar to those of the Minister of Labour in Great Britain. About 90 per cent of trade unionists in Northern Ireland are members of trade unions whose headquarters are in Great Britain.

HUMAN RELATIONS AT THE WORKPLACE

The establishment of good working conditions is assisted by the organisation of employers and workpeople, by arrangements for negotiation and settlement of differences, and by protective legislation and its enforcement. This institutional framework, however, cannot by itself create satisfaction with work and working conditions, nor the mutual trust and co-operation of management and workers, nor the sense of shared effort and achievement known as 'team spirit'. Nor will good wages and hours,

high standards of safety and health and lavish employee services necessarily bring about these attitudes and responses; their achievement depends rather on building up good relations between individuals and interacting groups within the organisation.

In recent years, therefore, there has been a marked increase of interest in 'human relations' in industry, i.e. relations between management and their workers as individuals, as distinct from relations between organisations of employers and organisations of workers. This has led to more widespread attention being given to all aspects of personnel management and to the establishment of more personnel departments.

Practically all large industrial firms and many small ones now have a personnel department staffed by one or more specialist officers. While the form of organisation of personnel departments varies, the personnel officer is generally responsible for advising all levels of management on every aspect of labour relations. This officer also has particular duties with regard to recruitment, selection, education and training, transfer of labour, the application of wage agreements, the promotion of joint consultation and the supervision of working conditions and employee services.

Both voluntary and official organisations are concerned with promoting better human relationships in industry. Voluntary organisations include bodies which deal with management problems and provide a service to subscribing firms, professional associations, linking individuals with a common interest in particular functions of management, and bodies providing specialist services, usually on a fee-paying basis.

In 1945 the Ministry of Labour established a Personnel Management Advisory Service which did much to promote good personnel management and to assist firms by discussing problems of personnel policy. In 1960 the service was amalgamated with the conciliation service to form an integrated industrial relations service which will continue to promote good personnel management and assist in the settlement of disputes. It will in future be staffed by specially trained industrial relations officers of the Ministry.

Recruitment and promotion policies are matters which each undertaking decides for itself, although in some industries the decisions may be limited by collective agreements or by trade practices. Great importance has recently been attached to selection; and courses for training personnel officers in modern interviewing techniques, including the use of test procedures, are now well attended. Selection of applicants for jobs is assisted by the Government Employment Services.

Education and Training

In Britain practical industrial training is the responsibility of industry, though the Government accepts entire responsibility for theoretical technical education. Since the end of the second world war, there has been an intensification of the educational and training activities arranged by industry. Short-term training is almost entirely the responsibility of individual firms, but in about 120 sections of industry and commerce, employers and trade unions have agreed national or regional schemes of apprenticeship and other long-term training. Further expansion and improvement of training facilities were urged in the report of a sub-committee of the National Joint Advisory Council which was published in February 1958 under the title *Training for Skill*. The report stressed that the increase in the number of young people leaving school in the next few years afforded a great opportunity to increase the supply of skilled workers and technicians, and proposed that a council should be formed by industry to follow up its various recommendations. As the outcome, the Industrial Training Council was established in July 1958 by the British Employers' Confederation, the Trades Union Congress and the boards of nationalised industries. Representatives

from the interested Government departments, the Association of Technical Institutions and the City and Guilds of London Institute were also appointed to participate in the council's work. The council's aims are to keep under review the recruitment and training of workpeople, to provide encouragement and help to industries in dealing with the training of workpeople, and to collect and disseminate information about aspects of training common to more than one industry, including information about training practices in other countries.

In 1959 the council accepted the offer of a Government grant-in-aid for the general purpose of promoting the expansion of training for young people, and for the particular purpose of assisting in the appointment by employers' organisations or joint bodies of training development officers to stimulate the setting-up of training schemes for young people. The council can draw up to £75,000 until March 1964, the only condition being that industry must itself match the amount of grant drawn by an equal sum.

Joint Consultation

The realisation that the co-operation of workpeople depends largely on their proper understanding of management's aims and plans has focused attention on the means of conveying information to workers. Methods used include posters, wall information sheets, production charts, displays of photographs, the production of news-sheets and house journals, discussions and lectures, film shows and exhibitions. It is increasingly held, however, that, although these media have their use, it is more important to improve communications down the normal chain of responsibility to workshop level (a matter which depends on personal relations and on the adequacy of supervisor training) and to establish means for joint consultation, such as those provided by a works council.

In the nationalised industries the various Acts placing them under public ownership impose obligations on the management, except where adequate machinery already exists, to consult with the appropriate trade unions to establish such machinery for promoting measures affecting the safety, health and welfare of employees and for discussing matters of mutual interest, including efficiency. Arrangements for consultation at all levels, including the workplace level, have been made in all the nationalised industries according to the traditions and needs of each industry.

The range of subjects which works councils can fruitfully discuss is wide and includes hours of work (within the framework of agreements), safety, health, efficiency of production, absenteeism, labour turnover, training, education, recreation and employees' services generally. Works councils are usually kept informed about the state of trade and production and the firm's prospects, and frequently consider problems resulting from decisions to change production methods. It is the general practice, however, to exclude all questions relating to wages and conditions of employment, and other matters covered by negotiation between organisations of employers and workers.

The Government has assisted these developments by advice on techniques, by the supply of posters, pamphlets, films and other publicity material, and by encouraging and promoting joint consultation. Industrial relations officers of the Ministry of Labour are often approached by firms seeking advice on the establishment of works councils or on ways in which their activities can be made more effective.

The Government has sought to extend by research the available knowledge of the factors influencing human relations in industry and human efficiency. Research units of the Medical Research Council have worked on these problems for many years. In 1948, the Advisory Council on Scientific Policy set up a committee on industrial productivity, and in March 1953, the Department of Scientific and Industrial Research

and the Medical Research Council set up two committees concerned with research on the human factor in industry, the Committee on Human Relations in Industry and the Committee on Individual Efficiency in Industry.

Results of some of the sponsored researches have been appearing during the last few years. The committees were disbanded in 1957 on completion of their terms of office and the Department of Scientific and Industrial Research has appointed a new Committee on Human Sciences, while units of the Medical Research Council are continuing research into cognate problems.

SOUND AND TELEVISION BROADCASTING

Broadcasting of sound and of television in the United Kingdom is regulated under powers conferred on the Postmaster General by the Wireless Telegraphy Acts, 1949–1955, which prohibit the sending or receiving of radio communications, except under licence. Users of sound and television receiving sets must obtain an annual licence, which can be purchased from most post offices.

Sound broadcasting services are provided solely by the British Broadcasting Corporation (BBC), which was established as a public corporation by Royal Charter in 1927. Television services are provided by both the British Broadcasting Corporation and the Independent Television Authority (ITA), which was established by the Television Act, 1954.

The number of receiving licences current in the United Kingdom at the end of June 1962 was 15,479,517, of which 11,983,683 were for sound and television combined and 3,495,834 (including 509,685 for sets fitted in cars) for sound only. A combined sound and television licence costs £4 (including £1 excise duty); a sound only licence costs £1. Registered blind people are entitled to free sound licences or to combined licences for £3. One licence covers all receiving sets in a household, but a separate licence is required for a set fitted in a car.

Development of the Services

When sound broadcasting began in the United Kingdom in 1922, it was decided in Parliament that the Postmaster General should grant only one licence for that purpose at any one time, and the first licence was granted exclusively to a limited company (the British Broadcasting Company). The decision to grant only one licence for broadcasting was maintained when the British Broadcasting Corporation (BBC) was formed to take over the functions of the limited company in 1927; it was reaffirmed in 1937 when the BBC's second charter was granted to cover the sound services and the television service which the BBC had inaugurated during the previous year; and it was upheld throughout the second world war and during the post-war period until 1952.

During the second world war television broadcasting was suspended and transmissions were not resumed until 1946. After resumption, however, the television service gained rapidly both in technical efficiency and in popularity; and between 1949 and 1952 the Government instituted a major review of sound and television broadcasting which aroused great interest in Parliament, in the press and among the public. After prolonged parliamentary and general discussion it was decided by the Government that the potential power of television was so great that it would be undesirable

to leave transmission services in this medium in the hands of a single authority, however excellent. The Independent Television Authority was therefore established in 1954, as a public body, to provide services additional to those of the BBC for an initial period of ten years; and independent television transmissions began in September 1955—the BBC's monopoly in the provision of sound broadcasting services remaining undisturbed.

A further review into the fundamentals of the broadcasting services, which covered both the technical considerations and constitutional principles on which broadcasting in the United Kingdom has hitherto been based and the whole question of future sound and television services, was undertaken by a Government-appointed Committee of Inquiry set up under the chairmanship of Sir Harry Pilkington in 1960.

The committee's report, published in June 1962, contained a number of recommendations, some of which were endorsed in a Government White Paper issued the following week and debated by Parliament in July. As a result, certain technical and other changes are being made in the television services (see p. 487). On the more controversial issues, such as the future constitution of independent television services and the use of pay-television, the Government deferred its decision to allow time for the expression of public opinion on the committee's views.

Broadcasting Authorities

The BBC and the ITA are independent authorities in the day-to-day operations of broadcasting, including programmes and administration. The Government, however, retains ultimate control, and the Postmaster General, as the responsible Minister, is answerable to Parliament on broad questions of policy and may issue directions to the BBC and to the ITA on a number of technical and other subjects. The Postmaster General also has powers to prohibit the broadcasting of any particular matter or class of matter, or to revoke the licences of the BBC or ITA at any time; these powers, however, are treated as major reserve powers, and no formal veto has ever been placed on the broadcasting of a particular item. Both the BBC and the ITA are required to prepare annual reports and accounts, which are presented by the Postmaster General to Parliament.

The BBC and the ITA both consult with the Postmaster General as to the hours of television broadcasting, and he has approved an arrangement which permits a maximum of 50 hours a week, together with extensions (averaging ten hours a week) for certain stated purposes, such as religious broadcasts, ministerial and party political broadcasts, schools broadcasts, programmes of adult education, outside broadcasts and Welsh language broadcasts. The authorities may broadcast television programmes, within the prescribed maxima, during any periods best suited to the needs of their audiences. The BBC broadcasts its domestic sound services for some 18 hours out of the 24.

Organisation and Finance

The BBC operates under the provisions of two documents, each granted for a limited period at the end of which they may be renewed or amended: the Charter, which sets out the constitution, objects and organisation of the BBC and contains certain financial provisions; and the Licence and Agreement between the BBC and the Postmaster General, which deals with technical matters, certain non-technical conditions such as the prohibition of commercial advertisements and sponsored programmes, and details of the financial arrangements in force. The operations of the ITA are governed by the provisions of the Television Act, 1954, which formulate its constitution,

its functions, its purpose and the framework of its finances; and by the Licence (which contains technical provisions) issued to it by the Postmaster General in 1955.

The British Broadcasting Corporation

Under the current Charter (which came into force in 1952 and has been extended to 1964, the date of the expiry of the functions of the ITA under the Television Act) the corporation consists of nine governors (including a chairman, a vice-chairman and separate national governors for Scotland, Wales and Northern Ireland), each appointed for a period of not more than five years by the Sovereign in Council. As a corporate body, the governors are responsible for the conduct of the whole broadcasting operation, including the content and presentation of the programmes in sound and television, and the provision and working of the necessary installations and equipment.

In the discharge of its responsibilities the BBC is required to ensure that its services are used, as stated in the preamble to the Charter, 'as a means of disseminating information, education and entertainment', and to pay heed to the requirements of the Licence (for instance, it must allow the broadcasting of any announcement at the request of a Government department, and must not broadcast commercial advertisements or sponsored programmes). It must refrain from expressing editorial opinion on current affairs and on matters of public policy, and it is relied on to treat controversial subjects with complete impartiality.

The governors are advised on all aspects of their work by a number of councils, established in accordance with the terms of the Charter, e.g., the General Advisory Council, which has been in existence, except for a break during the war years, since 1934; the National Broadcasting Councils for Scotland and Wales, which, under the chairmanship of the national governors for Scotland and Wales, are responsible for domestic sound services in those countries; and the Regional Advisory Councils for the English regions and for Northern Ireland. There are also a number of other councils and committees, not specifically required by the Charter, but established by the BBC to advise on such matters as religious broadcasting, schools broadcasting, music and agriculture.

The chief executive officer of the BBC is the Director-General, who is appointed by the governors at their discretion and with whom they discuss all major matters of policy and finance. Under the Director-General are six directors (the Chief Assistant to the Director-General, and the Directors of Sound Broadcasting, Television Broadcasting, External Broadcasting, Engineering, and Administration) who, between them, cover the whole work of the BBC, and who, with the Director-General, constitute its Board of Management. The number of staff employed is approximately 18,000.

The services of the BBC are financed from (1) an annual sum, voted by Parliament, which is related to revenue derived from the sale by the Post Office of broadcast receiving licences; (2) an annual grant-in-aid, voted by Parliament, for the External Services, i.e. the European Services, the Overseas Services, and the Monitoring Service; and (3) profits from BBC publications, mainly the *Radio Times*, which has a weekly sale of over 5½ million copies and attracts a large advertising revenue. The gross revenue from the sale of licences for the year ended 31st March, 1962, amounted to £39,327,207, excluding the excise duty which is not regarded as part of the income from licences and is not available to be spent on broadcasting.

In 1961-62 the Post Office deducted £2,595,340 from the gross licence income, for the expenses it incurred in collecting the licence fees, investigating complaints of electrical interference, and administration, and the BBC received £36,731,867. In the

same year, the net revenue from publications was £1,056,673 and grant-in-aid receipts for the external services amounted to £7,384,000.

The Independent Television Authority

The Independent Television Authority consists of a chairman, a deputy chairman and eight ordinary members (three of whom have special responsibility for Scotland, Wales and Monmouthshire, and Northern Ireland severally) appointed by the Postmaster General. The ITA owns and operates the transmitting stations, but the production studios and equipment are owned, and the actual programmes are provided, by programme companies under contract to the ITA. The Authority has controlling and regulatory powers of a wide and important character in regard to programmes; the Television Act requires it to ensure that they do not offend against good taste or decency, that they are balanced in their subject matter, that they preserve due impartiality in presenting matters of industrial or political controversy, and that the news is reported accurately. In the choice of programme companies the ITA is guided by their potential ability to provide an efficient service and, in the case of regional companies, by their associations with the local communities concerned.

In the discharge of its duties the ITA is advised by three statutory committees: the Advertising Advisory Committee; the Children's Advisory Committee; and the Central Religious Advisory Committee, which by arrangement with the BBC acts as the statutory advisory body to the ITA on religious broadcasting. The ITA has also appointed a panel of six consultants to assist it in the exercise of its day-to-day responsibilities for religious services and programmes.

The chief executive officer of the ITA is the Director-General. There are also two Deputy Directors-General, and a headquarters and regional office staff covering all technical, administrative, clerical, typing and office services, which numbered 189 in 1962. Staff has also been recruited for the transmitting stations, bringing the total number of ITA staff to 527. Fifteen programme companies are under contract with the ITA: Associated-Rediffusion Limited; Associated Television Limited; ABC Television Limited; Granada TV Network Limited; Scottish Television Limited; Independent Television for South Wales and the West of England Limited (TWW); Southern Television Limited; Tyne-Tees Television Limited; Anglia Television Limited; Ulster Television Limited; Westward Television; Border Television Limited; Grampian Television Limited; Wales (West and North) Television Limited; and Channel Television Limited. A common news service is provided by Independent Television News Limited. A standing consultative committee, composed of two representatives of the ITA and a representative of each of the programme companies, provides consultative machinery between the ITA and the companies on matters affecting the companies as a whole. There is also an Independent Television Companies Association, designed to further the collective interests of the companies with such outside bodies as trade unions and sporting organisations, and generally to ensure that they speak as far as possible with one voice on public issues connected with television broadcasting policy.

The ITA receives no payments from licence revenue; its finance is drawn from annual payments made to it by the programme companies of amounts about three times greater than the actual cost of the engineering and administrative services it provides. In the year which ended on 31st March, 1961, these payments amounted to approximately £4.2 million. Of its surplus of £1,300,000 for the financial year 1960-61, £450,000 was paid by the ITA into the Exchequer at the direction of the Postmaster General, who also directed that £450,000 should be placed in the Authority's reserve fund

(which would then total £1,920,000), and that £450,000 should be carried to capital reserves to meet the net cost of capital expenditure during that year.

Sound Broadcasting

The BBC operates its domestic sound broadcasting services from 57 long-wave and medium-wave transmitters at 43 transmitting stations, and from 27 very high frequency (VHF) transmitting stations. In addition, a further 33 relay VHF stations will be completed by the end of 1964, to add 565,000 listeners to these broadcasts and to improve reception for 1,360,000 more. The VHF service will then be available to 99.7 per cent of the population of the United Kingdom. The external broadcasting services are at present transmitted from 39 high power, high frequency transmitters: 37 in the United Kingdom and two (used for relay purposes) at Tebrau, near Singapore. The Government has approved a major programme of building new transmitters for the overseas services, which will cost over £4½ million.

There are 141 studios for the domestic sound programmes, of which 58 are in London and 83 at various centres in the regional areas. The external services use 35 London studios. There are also 23 semi-automatic studios which can be operated by programme officials without an engineering staff.

Domestic Services

The domestic sound services (which produce over 20,000 programme hours a year) consist of the Home Service, the Light Programme and the Third Network (carrying the Third Programme and Network Three). These separate, but inter-related, services give the BBC reasonable scope in providing programmes that fall within a very wide range of what can be effectively broadcast in sound only.

Each of the four services has its own characteristics: the Home Service is planned as a general service, and in addition to a wide range of musical programmes and plays provides the principal news and information services, discussions on domestic and foreign affairs, political broadcasts (ministerial broadcasts and controversial broadcasts by party spokesmen) and special programmes of various kinds, including broadcasts for schools. It is also the vehicle for regional broadcasting (i.e. programmes specially compiled for listeners in Scotland, Northern Ireland, Wales, and the Midlands, and north and west of England). The Light Programme is intended for those who wish to enjoy relaxation and distraction in the least demanding form. The aim of the Third Programme is to satisfy the intellectual and cultural interests of a minority audience; and that of Network Three to meet the practical need of various groups of people for expert information on hobbies or work, which cannot properly be met during the evening hours by the other main services.

Following the recommendations of the Pilkington Committee, the Government proposes to authorise extended hours for BBC sound broadcasting; with these extensions the Light Programme will run continuously from 5.30 a.m. to 2.00 a.m. daily and the Third Network will carry a service of music during the morning and afternoon of each day.

External Services

The external broadcasting services of the BBC are intended to provide a link of culture, information and entertainment between the peoples of the United Kingdom and those in all other parts of the world; to present events of world-wide importance with speed and accuracy; and generally to reflect British opinion and the British way of life. These services are broadcast in English and in 39 other languages for some 600 hours a week, which is longer than the output of all the BBC's domestic sound and

television services added together, and involves the transmission of some 43,000 news bulletins and 50,000 talks (including press reviews) in the course of a year.

The services, under the Director of External Broadcasting, are divided into the European Services and the Overseas Services, each in charge of a Controller. Within these two groups are the regional divisions. Common to both groups is the External Services News Department, which prepares all the news broadcasts for audiences outside the United Kingdom.

The *European Services* broadcast over 220 programme hours a week and are subdivided into four regional groupings: South European (Spain, Italy, Greece, Turkey, Israel), Central European (Czechoslovakia, Hungary, Poland, Finland), East European (Soviet Union, Roumania, Bulgaria, Yugoslavia, Albania), and German. A French language service provides programmes for both European and African listeners. There is also an English service directed to the whole of Europe. The material broadcast by the regional services is mainly supplied by two central departments: the European Talks Department and the European Production Department.

The *Overseas Services*, which are directed to countries outside Europe, broadcast over 380 programme hours a week. They comprise the General Overseas Service (started as the Empire Service in 1932) with its world-wide audience of English-speaking listeners, and a number of regional services in English and 22 other languages. The General Overseas Service, which includes among its audience peoples of the Commonwealth, British Forces and British communities overseas, gives a complete programme service for 22½ hours every day. The regional services consist of the African Service with programmes in English, Hausa, Swahili and Somali; the Arabic Service; the Asian Service with programmes in 14 oriental languages; the Latin American Service with programmes in Spanish and Portuguese; and other special programmes in English for North America, Australia, the Pacific, the Caribbean and the Falkland Islands, in Maltese for Malta, in French for Canada and in French and English for Mauritius.

The external broadcasting services also include the *Transcription Service*, which records some 700 BBC sound programmes annually and distributes them to broadcasting organisations in all parts of the world; the *'English by Radio'* service, which broadcasts some 200 English lessons with commentaries in 46 languages every week and reaches an audience of several millions by direct transmission from London and the BBC's Far Eastern station and by recorded broadcasts from some 200 local stations in 87 countries; and the *Monitoring Service*, which reports foreign broadcasts from some 35 countries and languages and works under a reciprocal agreement with its American counterpart as regards monitored material from the Far East and other areas inaudible in the United Kingdom.

In the external services the Corporation works in consultation with the Government departments concerned with overseas relations which prescribe the languages and hours of broadcasting, but the day-to-day content of the programmes remains the responsibility of the BBC.

The BBC maintains offices in New York, Paris, Berlin, Ottawa, Toronto, Sydney, New Delhi, Singapore and Beirut, to encourage local interest in the BBC, to promote the use of BBC television and radio material and to provide the BBC with advice and help concerning programmes, whether for home listeners about that area or for listeners in the area itself. The offices (which are concerned with the whole field of sound radio and, where appropriate, television) are also responsible for promoting

good relations with the local broadcasting organisations, and for keeping the BBC informed about local broadcasting and other developments of interest; in these matters, they work closely with the BBC's Overseas and Foreign Relations Department. Audience research is undertaken by sampling surveys and other research methods to assess the size, nature and tastes of various audiences.

Television Broadcasting

In 1936 the BBC launched the world's first regular public service of high definition television. By 1962 this service was being transmitted from 33 stations and was available to 99 per cent of the population. A further forty relay stations will be completed by the end of 1964 to extend coverage to another 275,000 viewers and to improve reception for 1,367,000 more. The total coverage will then be 99.5 per cent of the population of the United Kingdom.

In the course of a year, the BBC television service broadcasts on a national network more than 7,000 items, made up of studio productions, outside broadcasts, films, and relays from the continent of Europe. BBC Television Enterprises undertakes the world-wide sale of BBC television programmes (films, tele-recordings and video-taped material); it also purchases material for the use of the BBC television service and conducts business relations with other television organisations throughout the world.

BBC studio productions come from the four main studios at the Television Centre, at Shepherds Bush in West London; and three studios at Lime Grove, London; and from fully equipped regional studios at Manchester, Birmingham,¹ Cardiff, Glasgow, Bristol and Belfast. In addition, twelve small interview studios (used mainly for short insertions into the news) have been established in London, Scotland, Wales, Northern Ireland, and in the north, midland and west of England regions. The Television Film Department of the BBC is housed at the Ealing film studios; and Television News and newsreel programmes originate from a specially equipped studio at Alexandra Palace, London. Three further main studios are now to be equipped at the Television Centre in west London; eventually, the Television Centre will be able to produce 1,500 hours of television programmes in a year.

Outside broadcasting, which provides nearly 1,000 programmes annually (over 16 per cent of the total BBC television output), covers most parts of the United Kingdom with its mobile units, presenting programmes both of national and of specifically regional interest. Programmes and news items from many parts of Europe are brought to viewers in the United Kingdom over the Eurovision network (see p. 490).

The first regular independent television (ITV) service was inaugurated in September 1955 by a programme transmission from the ITA London station at Beaulieu Heights, Croydon. By the end of 1962 programmes were being transmitted from 21 stations in all parts of the United Kingdom, and over eleven million homes in the United Kingdom were able to receive independent television.

ITV programmes are produced at studio centres in London, Birmingham, Manchester, Glasgow, Cardiff, Southampton, Newcastle, Norwich, Belfast, Dover, Plymouth, Carlisle and Aberdeen. The establishment of these studios is the direct result of the ITA's policy of encouraging the development of regional television, and the programmes are either for local broadcasting or for transmission to one or more of the other regions through the link system operated by the ITA. This consists of some 3,000 miles of vision links, about 60 per cent of which are two-way circuits.

¹ Work has started on a new Midland regional headquarters near Birmingham, which will become the first combined television and sound radio centre in the world.

Both the BBC and the ITV services include programmes of music, drama, light entertainment, variety, films, news reports covering international, national, and local events, political programmes, and outside broadcasts, particularly of national and State occasions and sport. Religious broadcasts and broadcasts for schools also feature regularly in both services, as do programmes designed to stimulate thought and widen people's horizons, such as interviews with outstanding personalities, investigations into matters of public interest, and programmes on the arts; and there are programmes of specialised interest, such as children's and family programmes, programmes for women, regional programmes, and programmes on agriculture. The BBC provides time and broadcasting facilities for party political broadcasts (the contents of which are, however, the responsibility of the political parties). The Television Act lays down that the programme companies (ITA) may take the whole service of party political broadcasts but not some only.

Commercial advertising is excluded from the television programmes of the BBC, as from its sound programmes, and the BBC seeks to avoid giving publicity to any individual firm or organised interest except in so far as is necessary in providing effective and informative programmes under the terms of the Charter. The ITA broadcasts advertisements (on which the programme companies depend for their revenue) subject to the relevant provisions in the Television Act, namely, that there should be no sponsoring of programmes by advertisers, that all advertisements should be clearly distinguishable as such and recognisably separate from the programme, and that the amount of time given to advertising should not be so great as to detract from the value of the programmes as a medium of entertainment, instruction and information. The ITA also has rules agreed with the Postmaster General about certain classes of broadcasts (including, in particular, religious services) in which advertisements may not be inserted and, on the advice of the Advertising Advisory Committee, has drawn up certain 'principles for television advertising' with a view to the exclusion of misleading or unsuitable advertisements from the programmes. The cost of inserting advertisements in the ITA service is borne by the advertisers, who pay the programme companies for advertising time.

Changes in Television Broadcasting

The following are among the more important changes to be made in television broadcasting, as a result of the Pilkington Report, the Government White Paper and the parliamentary debates.

1. The line definition standard is to be changed from the present 405 lines to 625 lines, the internationally agreed standard in general use throughout Europe. For technical and other reasons, the present service will have to continue in VHF on 405 lines for some considerable time, but any new service will be in ultra high frequency (UHF) on 625 lines from the start.
2. The BBC is to be authorised to provide a second television service on 625 lines in UHF, to begin in London in mid-1964 and thereafter be extended to the rest of Britain as rapidly as possible.
3. Colour television is to be introduced. The Government proposes to authorise the BBC to start transmitting some programmes in colour as part of its second service, and similarly for any second ITA service.
4. Pending the coming into operation of the full number of UHF services (estimated at a total of six), the BBC is to be authorised to provide a new

transmitter to enable a distinctively Welsh television service (in VHF) to be given to South Wales. Stations to serve north-east Wales and south-west Scotland are also likely to be provided to implement the conception of self-contained national television services.

5. The National Broadcasting Councils for Scotland and for Wales are to be given the same rights and duties, in respect of the BBC's television services in those countries, as they now exercise in respect of the Home Service on sound radio: this means that they will be able to opt out of the national service and provide programmes of their own origin and choice within the limits of an annual sum of money decided by the Board of Governors of the BBC.

Wire Broadcasting

Wire broadcasting—a system whereby radio programmes are received at a central point, whence they are distributed by wire to listeners and viewers—began in the United Kingdom in 1925 as a private venture and remains in the hands of private enterprise. Wire broadcasting companies operate under licence from the Postmaster General. They are not allowed to originate programmes of their own, and their function is to distribute programmes put out by general broadcasting stations. A specified minimum of their programme material must be taken from BBC sources. Subscribers to wire broadcasting services must have ordinary broadcast receiving licences. At the beginning of 1962 there were 609 wire broadcasting services, of which 426 gave television service and the remainder sound-only service. The number of subscribers at that date was 1,119,269, including 554,728 who were receiving television services.

Audience Research

Audience research, as conducted by the BBC, is carried on by means of (a) a Survey of Listening and Viewing, during the course of which a representative sample of the population is interviewed each day about its listening and viewing on the previous day, and (b) a continuous system of gathering, through panels of representative listeners and viewers, information about the way programmes are received by those who happen to see or hear them. Matters outside the scope of these routine and continuous operations are the subject of *ad hoc* investigations.

Independent Television relies in the main on figures supplied by an independent research organisation—Television Audience Measurement Limited—using a machine known as a Tammeter, which is fixed to a number of representative television receivers and records the actual time these receivers are in use.

Technical Developments

The Postmaster General is advised on the technical aspects of television (and VHF sound broadcasting) by the Television Advisory Committee, which consists of an independent chairman, the Director-General of the BBC, the Director-General of the ITA, representatives from the radio industry, independent members, and representatives of interested Government departments.

Research into technical problems is carried out by the scientific and engineering staffs of the BBC, the Post Office and the radio industry. Recent studies include: investigations into various systems of stereophonic sound transmissions giving satisfactory reproduction on conventional VHF receivers; methods of improving studio acoustics, microphones and loudspeakers; long-distance propagation studies in the short wave, VHF and ultra high frequency bands; and methods of increasing national

coverage both in sound and television by such means as the sharing of frequencies between stations in different parts of the United Kingdom, the construction of transmitting aerials having special horizontal radiation patterns, and the development of unattended relay transmitters of low power for providing a television and VHF sound service to small and isolated communities. The BBC has also developed equipment for converting television programmes from European standards to those of North America, and has granted a licence to a British company and a company in the United States for its manufacture. In the autumn of 1962 the BBC began a new series of experimental television transmissions on 625 lines in the UHF bands (Bands IV and V) which were transmitted in black and white and in colour from the Crystal Palace site in south London.

International Relations

The BBC and the ITA (together with the Independent Television Companies Association) are active members of the European Broadcasting Union. The union, which now has 29 active members among the broadcasting organisations in the European zone and 16 associate members (mostly from outside Europe, including the United States of America and many of the nations of the Commonwealth) meets every year to exchange views and information, and to study common problems in the programme, technical and legal fields. It also maintains a Technical Monitoring Station, where frequency measurements and other observations on broadcasting stations can be carried out.

Within the Commonwealth, the BBC is closely associated with the broadcasting organisations of the other member countries and of the dependent territories. A decision, taken at the third Commonwealth Broadcasting Conference in 1956, to achieve still closer co-operation, resulted in the BBC joining with the Australian Broadcasting Commission, the Canadian Broadcasting Corporation, and the Rank Organisation to establish a British Commonwealth International Newsfilm News Agency Trust. Through an associated non-profit-making company (the British Commonwealth International Newsfilm News Agency Limited), this joint enterprise provides a reliable service of international news on film for subscribers who operate television services, produce cinematograph newsreels or acquire newsfilm for any other purposes, including education, anywhere in the world.

Both the BBC and the independent television companies are associated with the centre for educational television (recently registered in London), which concentrates particularly on the needs of the service in developing countries. The centre receives a Government grant totalling £100,000 over five years, but most of its funds come from private sources, including the independent television companies. The BBC provides free technical and other facilities, including film library resources and some use of lecture studios.

The BBC and the ITA also participate in the work of the International Telecommunication Union (ITU)—the United Nations specialised agency responsible for the regulation and control of all international telecommunication services (including sound and television), for the allocation and registration of all radio frequencies and (through its International Consultative Committees) for the promotion and co-ordination of the international study of technical problems in broadcasting. In addition, the BBC has long-established relations with the United Nations Radio Division, with the United Nations Educational, Scientific and Cultural Organisation (UNESCO), and with the Council of Europe.

Eurovision

As well as taking part in the exchange of sound radio programmes arranged between the member countries of the European Broadcasting Union (EBU), the BBC is a regular contributor to the network of European television (Eurovision). This network now includes 17 Western European member countries; the exchange of television programmes between them is arranged by the EBU, which maintains an International Television Co-ordination Centre (Eurovision) in Brussels. To facilitate programme exchanges on the Eurovision network a permanent television link, operating in either direction between London and the Continent, has been constructed by the Post Office. The range of Eurovision is steadily increasing as countries expand their networks and facilities, and new countries participate. Successful programme exchanges have also been made between Moscow and London by both the BBC and the independent television companies.

Transatlantic Television

The first television relay across the Atlantic by means of Telstar, the communication satellite, was seen in Britain in the early hours of 11th July, 1962. The first programme exchanges between America and Europe via the satellite Telstar (see p. 217) were televised on 23rd July. The programme from Europe to America was prepared by the European Broadcasting Union under the executive producership of a BBC producer seconded to the EBU. It consisted of items from nine of the sixteen Eurovision countries and was controlled from the EBU international control room in Brussels. The programmes from America were translated into eight European languages. It was estimated that 30 million sets in Europe and 55 million sets in the United States were switched on for the programme exchanges.

THE PRESS

The British press caters for all political views, different levels of education and a wide range of interests. It is free from Government censorship and interference.

The British public buys more newspapers per person than any other in the world. It has been estimated (United Nations *Statistical Year Book*, 1961) that for every 1,000 inhabitants of the United Kingdom 514 copies of daily papers are sold every day. Next comes Luxembourg with 500 and Sweden with 462 per 1,000 inhabitants. Circulation figures of individual newspapers are proportionately high: five of the daily morning newspapers and five of the Sunday papers have circulations in the millions. These high figures are largely explained by the fact that the London morning and Sunday papers have 'national' circulations, i.e. they are distributed throughout the United Kingdom, being available almost everywhere on the day of publication.

Britain imports just over half its newsprint requirements, while the rest is made from imported raw materials. In 1961 1.3 million tons of newsprint were used in the United Kingdom. The average size of London national morning papers varies between 16 and 32 pages. Prices of daily newspapers vary from 3d. (for the majority of papers) to 5d. (for *The Times*). Sunday papers run up to 48 pages and to a price of 6d. (The *Sunday Times* includes, in addition, a colour magazine section running to 28 pages.)

According to *The Newspaper Press Directory*¹ there are some 150 daily and Sunday newspapers and over 1,300 weekly papers published in Greater London and almost every sizable town in the rest of the country. These papers deal mainly with news of interest to the region where they are sold. There are also the sporting papers, papers in foreign languages for groups of nationals of other lands resident in Britain, and religious papers.

In 1947 a Royal Commission on the Press was appointed to inquire into the finance, control, management and ownership of the British press. Its report was issued in June 1949 (*Cmd. 7700*) and found that the British press 'is completely independent of outside financial interests and . . . its policy is the policy of those that conduct it'; there was evidence that the direct influence of advertisers on policy was 'negligible'. After studying management and ownership, the Royal Commission concluded that 'there is nothing approaching monopoly in the press as a whole, or . . . in any class of newspaper'. Among other recommendations it suggested the establishment of a General Council of the Press and this was set up in 1953 (see p. 498).

Since 1949 there have been signs of a trend towards concentration of ownership and a number of newspapers have had to close, because of inability to pay their way, or have been absorbed by others; they included in 1960 and 1961 five 'national' newspapers—the daily *News Chronicle*, the London evening *Star*, and the Sunday *Empire News*, *Sunday Graphic* and *Sunday Dispatch*. On the other hand, one new Sunday paper, the *Sunday Telegraph*, was successfully launched in 1961. The economic and

¹ Changes in the number of newspapers occur constantly; figures are based on the 1962 edition of *The Newspaper Press Directory*.

financial factors affecting the production and sale of newspapers and periodicals have been examined by a second Royal Commission, under the chairmanship of Lord Shawcross, appointed in March 1961 to consider, in the public interest, whether these factors tend to diminish diversity of ownership and control or the number or variety of publications. The Commission's report was due at the end of September 1962.

TABLE 39
'NATIONAL' NEWSPAPERS AND LONDON EVENINGS

Title	General Political Tendency	Owner	Circulation average Jan.-June (inc.) 1962
DAILIES			
<i>The Times</i> (1785)	Independent	Times Publishing Co. Ltd.	254,405
<i>Daily Telegraph</i> (1855)	Conservative	Daily Telegraph Ltd.	1,253,251
<i>Guardian</i> (1821)	Liberal	Manchester Guardian and Evening News Ltd.	265,108
<i>Daily Express</i> (1900)	Independent; stresses importance of British Commonwealth	Beaverbrook Newspapers Ltd.	4,285,338
<i>Daily Mail</i> (1896)	Conservative	Associated Newspapers Ltd.	2,570,509
<i>Daily Herald</i> (1912)	Labour	Odhams Press Ltd. (Daily Mirror Group)	1,347,849
<i>Daily Worker</i> (1930)	Communist	Daily Worker Co-operative Society Ltd.	61,105
<i>Daily Mirror</i> (1903)	Left of centre	Daily Mirror Newspapers Ltd.	4,559,504
<i>Daily Sketch</i> (1909)	Conservative	Associated Newspapers Ltd.	953,291
<i>Financial Times</i> (1888)	Independent	The Financial Times Ltd.	136,685
<i>New Daily</i> (1960)	Independent	British Newspaper Trust Society.	53,000
LONDON EVENINGS			
<i>Evening News</i> (1881)	As for <i>Daily Mail</i>	Associated Newspapers Ltd.	1,448,345
<i>Evening Standard</i> (1827)	As for <i>Daily Express</i>	Beaverbrook Newspapers Ltd.	742,128

TABLE 39 (contd.)

Title	General Political Tendency	Owner	Circulation average Jan.-June (inc.) 1962
SUNDAYS			
<i>Observer</i> (1791)	Independent	The Observer Ltd. All shares owned by The Observer Trust.	721,932
<i>Sunday Times</i> (1822)	Conservative	Thomson Newspapers Ltd.	1,110,457
<i>Sunday Telegraph</i> (1961)	As for <i>Daily Telegraph</i>	Daily Telegraph Ltd.	682,693
<i>News of the World</i> (1843)	Independent	News of the World Ltd.	6,644,501
<i>People</i> (1881)	Independent	Odhams Press Ltd. (Daily Mirror Group)	5,543,535
<i>Sunday Express</i> (1918)	As for <i>Daily Express</i>	Beaverbrook Newspapers Ltd.	4,398,093
<i>Reynolds News and Sunday Citizen</i> (1850)*	Supports the Co-operative Movement and the Labour Party	Co-operative Press Ltd.	302,744
<i>Sunday Pictorial</i> (1915)	As for <i>Daily Mirror</i>	Sunday Pictorial Newspapers Ltd.	5,192,988

* The paper was renamed the *Sunday Citizen* in September 1962.

Ownership

Ownership of the press is varied: it includes individual owners, two or more partner proprietors, local printing and publishing firms, newspaper companies owning between one and half a dozen papers, or press groups controlling a chain of newspapers in different parts of the country. In some cases newspaper groups also have interests in groups of periodicals.

Although pronounced views may be expressed in newspapers and their political leanings may be obvious, they are financially independent of any political party.

While early newspapers were often family concerns (and some provincial weeklies still are), with the development of papers for mass readership large capital sums were needed and ownership began to be transferred to joint stock companies. The largest press groups are: Associated Newspapers Limited, which has 3 London papers and through its subsidiary company Northcliffe Newspapers Group Limited owns a further 14 dailies and 19 weeklies; Thomson Newspapers Limited, which owns 16 dailies, 33 weeklies and 2 Sundays and whose chairman also controls Scotsman Publications; Westminster Press Group, which controls 9 dailies and 50 weeklies;

Provincial Newspapers Limited, which owns 4 dailies, 20 weeklies and one bi-weekly; the Mirror Group, which (with Odhams Press Ltd., which it has owned since 1961) has 2 London dailies and 2 Sundays and one Glasgow daily and one Glasgow Sunday paper; and the Beaverbrook Group, which owns one London morning, evening and Sunday, one weekly and one Glasgow evening paper.

The Daily Mirror Group is by far the largest publisher of periodicals in England and Wales. Its subsidiaries include Fleetway Publications (formerly the Amalgamated Press), Odhams Press Limited, the George Newnes Group and the Longacre Press (formerly Hulton Press). Between them they publish more than 350 periodicals, magazines and yearbooks. There are other, smaller groups, and publishers of single magazines. In Scotland the largest publishers of magazines are the Thomson-Leng Group.

Certain newspapers and periodicals are controlled by trustees whose aim is to preserve the character and traditions of the paper and prevent control from falling into the hands of people who might change the editorial policy and tradition. Various forms of trust govern the direction of *The Times*, *Guardian*, *Observer*, *Economist*, *Spectator* and *New Statesman*.

The 'National' Press

Ten morning papers with headquarters in London, and one (the *Guardian*) in Manchester, are 'national' in the sense of circulating throughout the British Isles, and there are eight 'national' Sunday papers (see Table 39). Ten of these papers have northern editions published in Manchester which, after London, is the largest press centre in England; while the *Guardian* has had a London edition since September 1961. The leading Scottish papers (see below) circulate widely, and certain specialised daily papers also have a circulation not limited by region, for example, *Lloyd's List and Shipping Gazette* and *Sporting Life*. The two London evening papers each have affiliations with a national daily, but draw their readership very largely from people living within fifty miles of London.

Provincial Newspapers

The provincial newspapers, numbering over 80 morning or evening dailies and Sunday papers and over 850 weeklies, provide the general and local news expected by readers whose daily life and interests are known to, and shared by, the newspaper staff. A number of the provincial papers still in existence were founded before 1800; the oldest being *Berrow's Worcester Journal*, dating back to 1709. With a few exceptions (e.g., *Yorkshire Post*, *Birmingham Post*, *Newcastle Journal*, *Northern Echo*, *Sheffield Telegraph*, *Western Mail*) they reflect no definite political tendency. The total circulation of the provincial morning papers is about 2½ million, of the provincial evenings about 7 million, and of the provincial weeklies just over 11 million. Among the provincial mornings, *The Journal* (Newcastle), the *Yorkshire Post* and the *Northern Echo* have circulations of over 100,000; two provincial Sunday papers—the *Sunday Sun* (Newcastle) and the *Sunday Mercury* (Birmingham)—have circulations of over 200,000; while, among evening papers, the *Liverpool Echo and Evening Express* has a circulation of 415,429, the *Manchester Evening News* of 334,972, five (*Birmingham Mail*, *Manchester Evening Chronicle*, *Newcastle Evening Chronicle*, *Sheffield Star*, *Yorkshire Evening Post*) have circulations of over 200,000 and nine of between 100,000 and 200,000. The provincial newspaper, often read far more thoroughly than the national daily, is a valuable medium for national and local advertising.

There are over 90 London suburban weeklies.

Scotland

Scotland has eight morning, eight evening and three Sunday newspapers, including the Scottish editions of the *Daily Express*, *Daily Mail* and *Sunday Express*. The *Glasgow Herald*, founded in 1783, and *The Scotsman*, founded in 1817 and a daily since 1855, published in Edinburgh, are among the papers which influence serious opinion in Great Britain. The circulation of the former is 85,126 and of the latter 68,430 (average figures January to end-June 1962). Other morning papers are the *Daily Record* and the *Noon Record*, published in Glasgow; the *Courier and Advertiser*, published in Dundee; and Aberdeen's *Press and Journal*. Evening papers include the *Edinburgh Evening News* and *Evening Dispatch*, Glasgow's *Evening Times* and *Evening Citizen*, Dundee's *Evening Telegraph and Post*, Aberdeen's *Evening Express*, the *Paisley Daily Express* and the *Greenock Telegraph*. The Sunday papers are the *Sunday Mail* and the *Sunday Post* as well as the *Scottish Sunday Express*.

Among the weekly papers are the *Weekly Scotsman* and the *People's Journal*, which also circulate outside Scotland; in all there are about 160 weekly papers published in Scottish towns.

Northern Ireland

Northern Ireland has three morning papers and one evening paper, all published in Belfast: they are *Belfast News-Letter*, *Northern Whig*, *Irish News* and the evening *Belfast Telegraph* which has a circulation of 211,236 (average figures January to end-June 1962). There are 43 weekly newspapers in Northern Ireland, including two published twice a week. The majority are published by individual companies and all the counties have good coverage of local papers. There are no Sunday newspapers.

Wales

One daily morning newspaper, the *Western Mail*, published in Cardiff, has a circulation of over 104,000, mainly in southern Wales. In North Wales, the *Liverpool Daily Post* gives wide coverage to events in the area. Evening papers published in Wales are the *South Wales Echo*, Cardiff, the *South Wales Argus*, Newport, and the *South Wales Evening Post*, Swansea. North Wales is served by the *Liverpool Echo* and to a smaller extent by evening papers published in Manchester, the *Manchester Evening News* and the *Manchester Evening Chronicle*. The *News of the World*, the *People* and *Reynolds News* carry news about Welsh affairs written by columnists.

The weekly press includes 63 weekly papers in English, many of them carrying articles in Welsh; 2 bilingual papers; and 8 papers in Welsh, of which 4 are denominational.

Channel Islands and Isle of Man

The Channel Islands have one morning paper (*Guernsey Star*), two evening papers and two weeklies. The *Isle of Man Times* is issued from Mondays to Wednesdays with a special weekly edition which is published on Friday; its companion paper, the *Isle of Man Examiner*, is published on Thursday. There are four other weeklies.

Periodicals

Weekly, monthly and quarterly journals cover an enormous field. Salient features of the last twenty-five years have been the development, on the one hand, of periodicals with a mass appeal, particularly those for women and adolescent girls; and, on the other hand, the growth of the trade and technical press. There are over 4,600 periodical publications: general magazines with circulations ranging up to over a million; women's magazines, some of which have even larger circulations; numerous publications

for children; a wide range of religious periodicals for all denominations; magazines dealing with sports, hobbies, fiction and humour; periodicals specialising in various subjects such as politics, finance and economics, science, the professions, and the arts; nearly 2,000 trade and technical publications, many of which have circulations throughout the world, while others are published solely for export; and the journals of learned societies, trade unions, regiments, universities, colleges, schools, and other associations. There has also been a large increase in recent years in the number and circulation of 'house journals', produced by industrial organisations mainly for their staffs; a survey made in 1961 by the British Association of Industrial Editors estimated that some 1,500 house journals were published.

The weekly periodicals with the highest sales are: *Woman* (3,311,582); *Woman's Own* (2,515,412); *Reveille* (1,533,183); *Woman's Weekly* (1,471,692); *Woman's Realm* (1,424,831); *Weekend* (1,140,392); *Woman's Mirror* (1,136,483); together with the *Radio Times* (5,610,035) and *TV Times* (3,678,535).

Although their circulations are smaller, the weeklies dealing with political, social and economic affairs enjoy an increasing and influential readership. The *Economist* and the *Statist* cover topics of the day from a far wider angle than their titles would indicate and are politically independent; the *New Statesman* is a review of politics, literature and the arts with an independent socialist political tendency; the *Spectator* covers much the same subjects from an independent conservative standpoint; *Time and Tide* has a strong liberal tendency; and *Tribune* has a left-wing but strongly anti-communist bias. Other papers whose circulations are in the tens of thousands are the illustrated weeklies such as the *Illustrated London News*, the *Sphere*, the *Field* and *Country Life*, while *Punch* is the leading humour periodical. All these weeklies are widely read in libraries, clubs and other institutions.

Monthly and quarterly journals, generally speaking, appeal to the more serious type of reader, particularly the literary and political journals and those specialising in international and Commonwealth affairs.

In addition to the circulation of periodicals published in England, Wales has had since 1957 its own farming weekly, the *Welsh Farm News*. There are also several monthly and quarterly publications in both the Welsh language and English.

Four monthly illustrated periodicals are published in Scotland: *Scottish Field*, *Scotland's Magazine*, the *Scots Magazine* (founded 1739) and *Scotland*; and two weeklies devoted to farming interests, *Farming News* and the *Scottish Farmer*. Among literary journals, probably the most famous is *Blackwood's*, published in Edinburgh. Popular magazines are numerous: the Thomson-Leng Group of Dundee alone distributes about 10 million copies of weeklies in the British Isles and abroad.

In Northern Ireland weekly, monthly and quarterly publications cover farming, the linen industry, building, motoring and politics.

News Agencies

There are three principal British news agencies:

Reuters Ltd., a world news agency owned by the newspapers of the United Kingdom, Australia and New Zealand and operated by them on a non-profit-making basis under the terms of a deed of trust which guarantees the independence and integrity of Reuters news services. Founded in London in 1851, Reuters today maintains hundreds of correspondents throughout the world, supplying a continuous report of foreign news to the London newsroom. This is then distributed to United Kingdom newspapers, radio and television services and, through an extensive private network of communications, to news media in almost every country of the world.

Press Association Ltd., which distributes home news. It is owned by British provincial newspapers. All profits are used to develop the service.

Exchange Telegraph Company Ltd., a public company which distributes home news to British papers and other subscribers.

Two other agencies supply a general service of overseas news:

Associated Press, which is a branch of the Associated Press of America.

British United Press, which is a Canadian subsidiary of United Press International, an American agency.

There are also some 80 United Kingdom, Commonwealth and foreign agencies and news services with offices in London, as well as agencies in other cities, specialising in various aspects of newspaper and periodical requirements.

Syndication of features is not as common in the United Kingdom as in some countries, but there are agencies specialising in this type of work.

Training for Journalism

Until recently, and this therefore applies to most older newspapermen working today, journalists were, broadly, of two classes: those who entered newspaper offices on leaving school and worked their way up, learning by experience; and university graduates who held some of the specialised posts, such as correspondents abroad or on special subjects, leader-writers, sub-editors or reporters. The second class has always been comparatively small.

In 1952 an agreement was reached for a comprehensive plan for the training and education of journalists in newspaper offices. A National Council for the Training of Journalists, on which the principal press organisations are represented, administers the scheme, which is based on training in newspaper offices and local colleges of further education. Regional training committees of local newspaper representatives supervise the operation of the scheme in provincial areas. Examinations are taken at two levels: the Proficiency Test which may be taken after three years of active journalism; and the Diploma, which may be awarded after further examination and submission of a thesis. It is compulsory for all new entrants to journalism in offices which are members of the Newspaper Society to participate in the training scheme.

Under the Commonwealth Press Union travelling fellowship scheme (launched in 1960) for the training and education of young journalists throughout the Commonwealth, about ten journalists from overseas spend six months in the United Kingdom: two or three months in the offices of newspapers or periodicals and the remaining time acquiring a general idea of life in Britain.

Press Institutions

Both employers and employees in the industry are well organised. On the employers' side, the most important organisations are the Newspaper Proprietors Association, whose members are proprietors of London (national) daily and Sunday newspapers; the Newspaper Society, whose members are proprietors of provincial daily and weekly newspapers in England and Wales; the Scottish Daily Newspaper Society; the Scottish Newspaper Proprietors' Association; the Belfast Newspaper Society; Associated Northern Ireland Newspapers, whose members are the proprietors of weekly newspapers in Northern Ireland; and the Periodical Proprietors' Association, whose membership embraces the independent publishers of trade and technical publications and general magazines. On the employees' side there are the Institute of Journalists (IoJ)—the National Association of Journalists until 1889—incorporated by Royal

Charter in 1890, and the National Union of Journalists (NUJ), founded in 1907. The National Union of Journalists has a membership of 16,500 (June 1962) working journalists and is the largest trade union confined to journalists in the world; editors who have powers of dismissal are excluded from full membership but may be associate members. The Institute of Journalists, as it admits all qualified journalists on equal terms of membership, may claim to be representative of the profession as a whole. Free-lance journalists (who are not on the staff of any one paper or group of papers, but send contributions to any journal) may belong to the NUJ or IoJ. The aims of these organisations are the improvement of the economic status of journalists, the promotion of their professional welfare, and the safeguarding of the status of the press and its editorial staffs.

The main aims of the Guild of British Newspaper Editors are to sustain the dignity of editorship, to raise and safeguard the professional status of editors, to protect the rights and freedom of the press, and to improve the education and training of journalists: the guild has about 320 members. The British Association of Industrial Editors is the professional organisation to which most editors of house journals belong.

The Typographical Association, in the provinces, and the London Typographical Society, in London, are the principal craft unions organising such workers as compositors and machine minders. The National Union of Printing, Bookbinding and Paper Workers is principally concerned with the publishing and distribution side, and the National Society of Operative Printers and Assistants (NATSOPA) includes machine assistants, clerical workers and general assistants in printing works. These unions cover the printing industry generally.

The General Council of the Press

Following the recommendations of the 1947-49 Royal Commission on the Press, a Press Council representative of the various press organisations was set up in 1953. Its aims are:

- to preserve the established freedom of the British press;
- to maintain the character of the British press in accordance with the highest professional and commercial standards;
- to keep under review any developments likely to restrict the supply of information of public interest and importance;
- to promote and encourage methods of recruitment, education and training of journalists;
- to promote a proper functional relation among all sections of the profession;
- to promote technical and other research;
- to study developments in the British press which may tend towards greater concentration or monopoly; and
- to publish periodical reports recording its own work and reviewing from time to time the various developments in the British press and the factors affecting them. Reports are published annually.

The Council consists of eight national and provincial newspaper editors, four nominees of the National Union of Journalists, three nominees of the Institute of Journalists, and ten managerial representatives.

The work of the Press Council has been largely concerned with complaints by individual members of the public, organisations, and local authorities about the publication of errors of fact and contested opinions, intrusion by the press into the

private lives of individuals or other breaches of professional standards. The Council also promulgates its view on ethical concepts applicable to all newspapers. The Council has no statutory authority; its only powers are those of rebuke and publicity.

The Press and the Law

The press in Britain has the same freedom as the individual to do and say what it likes provided it does not transgress the law; and, in general, it enjoys very great liberty of comment on matters of public interest. Apart from enactments relating directly to such matters as the registration of newspapers, there are no laws applying to the press in particular and not to the general public; but requirements which affect journalists and the press occur in a variety of Acts of Parliament. For example, the Public Bodies (Admissions to Meetings) Act, 1960, and other Local Government Acts govern the admission of the press (and the public) to meetings of local councils; and restrictions on the reporting of domestic proceedings and proceedings concerning juveniles are imposed by legislation governing procedure in the law courts. The press must comply with the copyright laws and with the laws against the publication of matters covered by the Official Secrets Acts, with the laws of seditious libel, blasphemous and obscene libel, and defamation, with the laws for the protection of children from publications which might do them moral harm, and with the laws against fraudulent advertising, against breach of parliamentary privilege, and against 'contempt of court'—for example, the publication of anything affecting a case before the courts which might tend to influence the result of the trial, or of comment on court proceedings which might tend to prejudice their reputation for fairness.

Legal proceedings against the press are infrequent; the majority of actions that do take place are brought by private individuals seeking to protect their own interests, for example, against libel. In such cases, the editor, proprietor, publisher, printer and distributor of the newspaper, as well as the author of the article, may all be held responsible.

SPORT

In Britain, the word 'sport' is used generally to describe such activities as organised outdoor games, athletics, field or country sports, indoor games, aquatic sports, and such popular pursuits as horse-racing, dog-racing, show-jumping, riding, boxing, rock climbing, motor racing, cycling and rifle shooting as well as those (for instance, archery, fencing, gliding and ice-skating) which, although less popular judged by the number of participants and spectators, all have their own devotees. Those who engage in sport may be professionals (i.e. paid players) or amateurs (i.e. people who play games or take part in other forms of sport usually in their leisure time and without monetary reward). Professionals keep up the technical standards of the sports in which they take part¹ and spectators make a vital contribution by their enthusiasm and their financial support; but the sporting life of Britain derives its character principally from the amateur element—people who devote time and energy to organising sport and to teaching and training, as well as the many thousands of all ages who engage in sport for pleasure alone.

Central and Local Government Participation

The Government is not directly concerned with the organisation or promotion of sport, but it gives encouragement and support to physical education through the Ministry of Education and the Scottish Education Department, and it allocates grants from public funds to bodies responsible for the provision of playing fields and other facilities for physical recreation, and to national sporting organisations towards the cost of appointing instructors (coaches) in various kinds of sport. The Government of Northern Ireland gives similar support.

The Minister of Education and the Secretary of State for Scotland, although not responsible for prescribing the curricula in any school, require that all schools receiving financial assistance from public funds shall provide for the physical education (gymnastics, games, athletics, dancing and swimming) of their pupils, and are concerned, through inspectors of physical education and by means of departmental publications, that a high standard shall be maintained. All schools in the national system must have their own playing field, or the use of one, and most secondary schools have a gymnasium. Facilities for, and instruction in, many kinds of sport are also provided at the independent preparatory and public schools, and at the universities (some of which have departments of physical education).

Local authorities are empowered under the Public Health Acts and the Physical Training and Recreation Act, 1937, to provide playing fields. They also provide gymnasias, tennis courts, golf courses and swimming baths, on a varying scale.

¹ Some sports, for example, athletics, Rugby Union football, hockey and rowing, are entirely amateur, but in other sports the distinction between professional and amateur status is becoming less strictly defined.

Composite National Bodies

The national organisations most closely concerned with the development of sport are the Central Council of Physical Recreation, the Scottish Council of Physical Recreation, and the National Playing Fields Association. The British Olympic Association, whose main functions are connected with the participation of British teams and competitors in the Olympic Games, is also interested in all matters likely to benefit sport or physical recreation in Britain as a whole.

The Central Council of Physical Recreation

The Central Council of Physical Recreation (CCPR), formed in 1935, is a voluntary association of all national bodies in England, Wales and Northern Ireland concerned with the development of post-school physical recreation. Its funds are partly raised by voluntary contributions but it receives a grant from the Ministry of Education, with which it is closely associated in much of its work.

The CCPR is composed of representatives of the British Olympic Association, the National Playing Fields Association, the governing bodies of 41 sports, 16 national outdoor activity associations, 16 bodies concerned with dancing and rhythmic movement, and 34 voluntary youth organisations, in addition to representatives of community centres, educational, physical education and health education organisations, local authorities and the Services' sports branches. Its headquarters are in London and it has nine regional offices in other parts of England. Its activities in Wales are controlled by a representative Welsh committee, and in Northern Ireland by a separate section with its own executive committee.

Broadly, the function of the CCPR is to promote all forms of physical recreation. Its activities include the organisation of a wide range of courses for coaches and instructors, courses in personal performance, lectures, displays and other publicity events. Its staff give advisory, technical and administrative help wherever required, but particularly to the headquarters, regional, county and local branches of the constituent organisations and to local education authorities and industrial concerns.

The Scottish Council of Physical Recreation

The Scottish Council of Physical Recreation (SCPR) was formed as a fully autonomous body in 1953. It is the counterpart in Scotland of the CCPR, performing many of the same functions, and it receives a grant-in-aid from the Scottish Education Department under the Further Education (Scotland) Regulations, 1959.

The National Playing Fields Association

The main aim of the National Playing Fields Association (NPFAs), founded in 1925, is to stimulate the provision of playing fields and playgrounds, especially for children, by publicity and financial assistance. Since its inception it has distributed some £1½ million in the form of grants for playing field and playground schemes and about £55,000 in the form of loans. It sponsors more than 400 schemes a year.

The NPFAs council is composed of representatives of the governing bodies of 16 sports, and of other sports bodies, of the British Olympic Association and the CCPR, and of a number of educational bodies, voluntary youth organisations, physical education associations and local authorities. The national headquarters in London employs a small full-time staff, including a technical and research department which gives advice on all aspects of playing field provision, design and maintenance. The NPFAs, which works in close co-operation with the Ministry of Education, the

Ministry of Housing and Local Government and local authorities, derives its funds mainly from voluntary contributions; it also receives a contribution from the Ministry of Education towards administrative costs.

The NPFA has branches in Scotland and Northern Ireland; there are also branches in nearly every English and Welsh county; administration is carried out, in the main, on a voluntary basis, in many cases in association with a county Rural Community Council.

National Recreation Centres

There are five National Recreation Centres in Britain—two in England, one in Wales and two in Scotland—administered by the CCPR and the SCPR. The purpose of the centres, which were established by voluntary funds, is to provide residential facilities for leadership and personal performance training in a wide range of games, sports and outdoor activities.

A further National Recreation Centre is being built by the London County Council at a cost of over £2 million on a 36-acre site at Crystal Palace. This centre will include a stadium with seating accommodation for 12,000 spectators; a sports hall in which there will be a large gymnasium divisible into three, with seating for 1,320 spectators, and a swimming hall with racing and diving pools of Olympic dimensions, a teaching pool and a gallery for 1,750 spectators; practice rooms for cricket and lawn tennis; a lecture theatre, two first-aid rooms and six changing rooms; and a hostel and staff housing. The centre will be administered by the CCPR; its main purpose will be training, but it is also designed for international competitions.

Outdoor Games

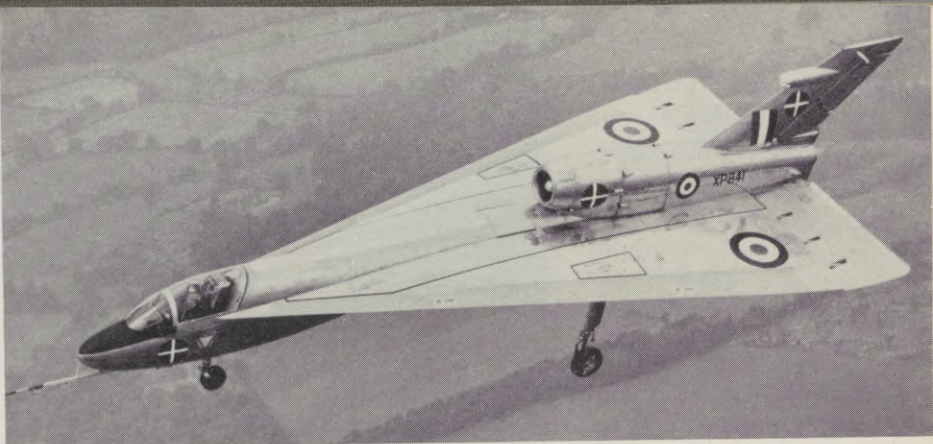
Outdoor games played in Britain include team games such as football, cricket, and hockey, and games, e.g., lawn tennis and golf, in which individuals or couples match their skill. Judged by the number of participants and spectators, the most popular of the team games are football and cricket, and the most popular of the individual games is lawn tennis.

Football

Although football of a kind was played in the Middle Ages or even earlier, as an organised game it dates from just over a century ago. One type of football, in which only the feet are used, was adopted at Cambridge in 1855; the other type, in which the ball is handled as well as kicked, was first played at Rugby School, whence it derives its name, and was adopted by the Blackheath football club in 1859.

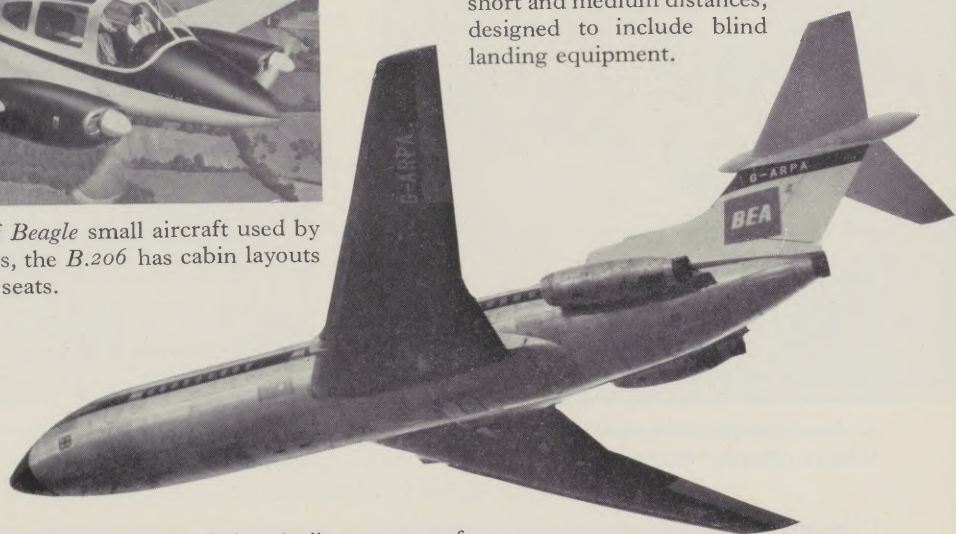
In England the controlling body of the non-handling game, *Association Football* (colloquially known as 'soccer'), is the Football Association (FA), which was formed in 1863. Its chief function is to promote the interests of the game and to prevent infringement of the agreed rules; it also arranges for the instruction of promising young players (some £10,000 is spent annually on coaching); organises various matches and competitions, including the international matches played by England, the Amateur Cup competition, two national youth competitions, and the competition for its own leading trophy, the Football Association Challenge Cup; and chooses and manages English international teams. Over 350 clubs are registered with the FA, more than 200 as full members and between 130 and 140 as associate members. The FA derives its main income from subscriptions and admission charges to international and cup matches, and ploughs back a large portion of the money into the game. Scotland,

The slender delta Handley Page research aircraft *HP 115* used for investigating the handling characteristics of high-speed aircraft at low speeds in take-off, approach, and landing.



One of a range of *Beagle* small aircraft used by business executives, the *B.206* has cabin layouts providing up to 7 seats.

The de Havilland *Trident*, a high-speed aircraft for short and medium distances, designed to include blind landing equipment.



The Vickers *VC 10*, a long-range jet airliner built to operate from existing airfields. It is fitted with one of the world's most powerful civil jet engines, the Rolls-Royce *Conway R.Co.42*



**BRITISH
PRODUCTS
FOR LEISURE
ACTIVITIES**

A glass-fibre cabin cruiser, a product of Britain's flourishing small-boat building industry (Thornycroft *Cepet*).



A glass-fibre motorboat for hiring out to holiday makers (Brensal *Harlequin*).



The MG *Magnette Mark IV*, a family sports saloon.

Caravans are increasingly popular for holidays in Britain and abroad (Fairview *Fairy*).



Northern Ireland and Wales have their own controlling bodies: the Scottish Football Association, the Irish Football Association and the Football Association of Wales.

The principal professional matches in England and Wales (played once or twice weekly) are controlled by the Football League, which comprises over 90 professional clubs in these countries. The funds of the League are derived largely from contributions paid by member clubs in the form of a levy of 4 per cent of the net gate receipts from league matches, after allowable expenses have been deducted, and from annual payments (approximately £250,000, of which some £80,000 is passed to the Scottish League) from the leading football pools promoters for the use of league fixture lists.

In Scotland the Scottish Football League is in charge of the weekly games; Northern Ireland has its own league. Clubs belonging to the English and Scottish Leagues are organised in divisions, the members of which compete against one another for the respective league championships. Their positions in the divisional tables are decided at the end of the season by the number of points gained for wins or draws. In the season 1961-62 a total of nearly 28 million people watched league football matches and the gate receipts in all amounted to about £4 $\frac{3}{4}$ million.

Several million people stake small weekly sums on the results of the league matches by filling in what are known as 'pools' coupons. The odds against winning anything in the pools are very great, but the prizes are high and individual payments of £300,000 may occasionally be made. The promoters of the pools deduct varying amounts from the stakes for commission and expenses.

The annual competition for the FA Cup is organised on a knock-out basis and the Cup Final is one of the most important football matches of the year in England; it is always played at Wembley Stadium, near London, which can accommodate some 100,000 spectators. The Scottish Cup Final is played at Hampden Park, Glasgow. The international matches between England, Scotland, Wales and Ireland also excite great interest, as do the matches between British teams and teams from European and South American countries.

There are many more amateur association football players than there are professionals (the comparative figures are about 650,000 amateurs, including schoolboys and members of the armed forces, to 7,000 or 8,000 professionals), but with one or two notable exceptions their teams cannot compete on equal terms, since professional teams are more systematically and intensively trained. Amateur teams compete against each other for the Football Association Amateur Challenge Cup.

Rugby football, or 'rugger', is played under the auspices of the Rugby Union (a controlling body with functions similar to those of the Football Association), which was established in 1871. The rules of the game are completely different from those that govern soccer, and there are 15 players, instead of 11, in a side. International matches between England, Scotland, Wales, Ireland, and France are played regularly at the leading rugby football grounds of each country, including Twickenham, London—the headquarters of the Rugby Union. Other important rugger matches are: the county championship competitions; the annual match between the universities of Oxford and Cambridge; the Hospitals' Cup final; and the Services Challenge Cup final.

Seven-a-side football (a variant of Rugby football) is also played by clubs and in English and Scottish secondary schools.

Membership of the Rugby Union is strictly confined to amateur clubs, but in the north of England there is a professional variant of the game played by teams of 13 instead of 15, according to the rules of the Rugby League. The Rugby League (instituted in 1895) holds frequent international matches as well as regular inter-county

competitions. The match for its highest trophy—the Rugby League Challenge Cup—is played at Wembley and is attended, on average, by some 75,000 spectators.

Cricket

Cricket is often called the English national game. The exact date of its origin is not recorded, but it is known that the game was played by the boys of Guildford Grammar School during the sixteenth century, and by the beginning of the eighteenth century it had gained greatly in popularity both in the villages of England and on the larger country estates.

The game has been played more or less as it is played today since the adoption of a generally accepted set of laws in 1744. About 1750 a cricket club was formed in the little Hampshire village of Hambledon; within 20 years it had made an outstanding name for itself and acquired a membership representative of patrons of cricket from all over England. In 1787 the Marylebone Cricket Club (MCC), now the governing body of cricket, was founded, with its headquarters in London on a site rented by a Yorkshireman called Thomas Lord. In the year 1809–10 the MCC moved its headquarters to a ground near Regent's Park, keeping the name *Lord's*; four years later *Lord's* transferred to another ground, at St. John's Wood, in the same neighbourhood, where it has remained ever since.

Following the establishment of the MCC, the laws of cricket became stabilised; other clubs that sprang up all over England during the nineteenth century recognised its authority, and nowadays all cricket is played according to the 'laws of cricket' as laid down by the MCC in consultation with cricketing organisations in Britain and the overseas Commonwealth.

In England cricket is played in schools and universities, and almost all towns and villages have their cricket teams which play at least one match a week during the season—roughly May to September. There are many thousands of cricket grounds all over England—in the London area alone nearly 400 pitches are provided by the county council, besides many leased or owned by clubs.

Apart from the university match between Oxford and Cambridge and certain representative games, such as Gentlemen versus Players, i.e. amateurs versus professionals, the greater part of first-class cricket is played in a county championship between seventeen 'first-class counties'. (The other counties have a 'minor counties championship' of their own.) Among famous grounds besides *Lord's*, are the *Oval*, Kennington, London, headquarters of the Surrey Cricket Club; *Old Trafford*, Manchester; *Headingley*, Leeds; and *Trent Bridge*, Nottingham.

In the late nineteenth century more amateurs played cricket than economic conditions in the twentieth century allow. Nowadays, when first-class matches last three days and each county plays between twenty and thirty matches in a season, most county players are professionals, although there are still some amateurs who can afford the time to play regularly. League cricket, which is a feature of the game in the north of England, is played by teams mainly consisting of amateur Saturday afternoon players with one or more professionals, many of whom are distinguished players from other Commonwealth countries. The MCC is an entirely amateur body, although retired professional cricketers of 'the highest merit' are elected to honorary membership.

In addition to county championships, matches known as 'test matches' are played regularly between a number of Commonwealth countries. The first of these matches was played at Melbourne, Australia, in 1877, between England and Australia. Present-day test matches last 30 hours (spread over five or six days); they arouse great popular interest and are widely reported in the press and on radio and television.

Hockey

Variants of hockey (as distinct from ice-hockey) have been played in Britain for at least five centuries; a haphazard form was played in schools before football became popular, and many hockey clubs were to be found in and around London during the latter half of the nineteenth century. Modern hockey, however, dates from the formation (in 1886) of the Hockey Association, which standardised the rules. Nowadays there are several hundred hockey clubs affiliated to the Hockey Association and a county championship was instituted in 1957, but the game has never attracted the same wide public interest as football and cricket, and there are no professional county teams and no cup-ties. On the other hand, regular amateur international matches (inaugurated in 1894) are played between England, Scotland, Ireland and Wales, with overseas countries, for instance France, the Netherlands, and Denmark, sometimes taking part.

In Britain hockey is more commonly played by women than by men. The controlling bodies are: the All England Women's Hockey Association (founded 1895) to which are affiliated some 1,550 girls' schools and about 950 women's clubs; and the Scottish Women's Hockey Association. The first international women's hockey match took place in 1896. Nowadays, one such match is always played at Wembley Stadium and may be attended by as many as 50,000 spectators.

Lacrosse

Lacrosse, adapted from the game played by the Iroquois Indians of North America, is played mainly by women—in girls' schools, at lacrosse clubs, and at universities. International matches are played, as well as regional matches, by women's teams representing the East, West, South, North and Midlands of England, under the auspices of the All England Ladies Lacrosse Association.

The men's game, of which the controlling body is the English Lacrosse Union, is played in seven universities, and by clubs and schools, mainly in and around London and Manchester. County matches are played and there is an annual fixture between the North of England and the South.

Netball

Netball is a popular game for girls and women. The controlling body is the All England Netball Association to which are affiliated the English county associations, the netball clubs of the three Women's Services and sections of the national youth organisations for girls and women. Inter-county and home international matches are played regularly and inter-Commonwealth tours are arranged.

Polo

Polo, of which the earliest records are Persian, was first played by the British in India, and brought to England in 1869. The governing body of British polo is the Hurlingham Polo Association to which all the Commonwealth polo associations are affiliated.

Polo players are a very small section of the community, for the cost of the purchase and upkeep of polo ponies is very high. However, many of the clubs now own trained ponies which are hired out to members at moderate cost. There are about 500 players handicapped by the Hurlingham Polo Association.

Public interest in polo has increased in recent years and large numbers of spectators attend inter-club tournaments and matches between high-handicap teams composed of players from several countries. The better known polo grounds are those at Cowdray

Park, Sussex; Windsor Great Park; Cirencester Park, Gloucestershire; Tarporley, Cheshire; and Tidworth on Salisbury Plain.

Lawn Tennis

A form of tennis has been played out of doors from the earliest times; but modern lawn tennis dates from about 1873, when it began to take its place with cricket as one of the British national summer games. In 1877 the words 'and lawn tennis' were added to the title of the All England Croquet Club at Wimbledon, near London, and in the same year the first championships were played; the Lawn Tennis Association, the controlling body of the game in Britain, was founded in 1888. The governing body of the game in the world is the International Lawn Tennis Federation, with headquarters in London and Paris.

The number of people who play lawn tennis has greatly increased during the present century, particularly since the game has spread to practically every country in the world. In Britain the game is played in almost all girls' schools and in very many boys' schools where the pupils are of secondary school age. It is also played on private courts, in parks and recreation grounds and at several thousand tennis clubs.

The annual championships held at Wimbledon for two weeks at the end of June and beginning of July are the main event of the lawn tennis season in Britain and, in fact, in the world. These championships, in which men and women of many nationalities compete, draw large crowds; there is accommodation for over 30,000 spectators in the grounds of the All England Club—14,000 can be accommodated round the centre court where the finals are played. Other tournaments which attract a good deal of attention are: the British Hardcourt Championships, the British Junior Championships and the County Championships. There are also competitions for boys' and girls' schools on a national basis, and matches for the Public Schools' Cup. The most important international event is the Davis Cup (for men). Women players from Britain and the United States of America also compete annually for the Wightman Cup.

Golf

Golf originated in Scotland, where for centuries it has borne the title of the Royal and Ancient Game, but it did not become really well known in the other countries of the United Kingdom until towards the end of the nineteenth century. Since then, however, it has gained steadily in popularity and nowadays there are golf courses in the vicinity of many towns and villages—some owned by local authorities, but the majority owned by golf clubs. The headquarters of the Royal and Ancient Golf Club is St. Andrews, Scotland.

The main event of the golfing year is the British Open Golf Championship, which was first played in 1860; other important matches include the Walker Cup (for amateurs) and the Ryder Cup (for professionals), both played between Britain and America; the Amateur Championship; and the Ladies Championship.

Bowls

The game of bowls has been played in Britain since the thirteenth century. Nowadays the flat green game is regulated, as far as the English Bowling Association is concerned, by the International Bowling Board (IBB), founded in 1905. The Bowling Associations of Ireland, Scotland and Wales also come under and play to the laws as laid down by the IBB, but there are other bowling associations in England—the English Bowling Federation, the Crown Green Association and the English Women's Bowling Association—which are not under the IBB's control.

During the summer bowls is played on bowling greens in the open; in winter it is played on indoor greens, which are increasing in number. At one time regarded as a pastime for the elderly, the game has gained immensely in popularity during recent years; over 2,400 bowling clubs in 34 counties of England are affiliated to the English Bowling Association alone, and international and inter-county matches are played.

Athletics

Amateur athletics, which include running (track, road and cross-country), relay racing, jumping, hurdling, throwing and race-walking, are governed by the Amateur Athletic Association (AAA), which was founded in 1880 to encourage, promote and control amateur athletics, to improve the management of amateur athletic meetings by the establishment of uniform regulations, and to promote annual championship matches. The association, whose membership increased rapidly from small beginnings, is now organised from club to national level by honorary officers and managed by representative members appointed by the Northern, Midland, Southern and Welsh areas and by affiliated clubs and associations (amateur athletic clubs, schools and youth organisations), of which there are hundreds throughout England and Wales. The AAA administers a coaching scheme, with a constant expenditure of at least £10,000 a year, under which five full-time national coaches, working mainly in separate regions, lecture, demonstrate and coach in schools, youth clubs, evening institutes, training colleges and universities and at special courses organised by the national associations, by regional associations or by the Central Council of Physical Recreation. Some of the work of the national coaches is directly concerned with coaching young athletes but their main duties are to instruct men who wish to qualify by examination as honorary coaches; some 2,000 qualified honorary coaches give voluntary services in the counties and districts of England and Wales. Scotland and Northern Ireland have their own amateur athletic associations, with similar functions; there are also separate Women's AAAs for each country.

International athletics and the selection of teams representing the United Kingdom are dealt with by the British Amateur Athletic Board, which is composed of representatives of the three national associations for men and of the Women's Council, and is affiliated to the International Amateur Athletic Federation.

Track meetings of athletics are held throughout Britain from April to October. The main events in England and Wales are: the AAA championships for men and international matches held at the White City, London; area and county championships; and the universities, Services, business houses and schools championship meetings. Clubs usually compete in cross-country running from October to March, and international, county and area cross-country championships are held.

Teams representing Britain compete in the Olympic Games (held every four years), and separate teams representing England, Wales, Scotland, and Northern Ireland compete in the Commonwealth Games, held at four-yearly intervals between the Olympic Games.

Highland Games. The Highland games are traditional gatherings of local people in the Highlands of Scotland, at which sports (including tossing the caber, putting the weight, and throwing the hammer) and dancing and piping competitions take place. Among the better known Highland games are the Northern Meeting at Inverness, the Braemar Gathering on Deeside (traditionally attended by the royal family), the Argyllshire Gathering at Oban, and the meeting at Aboyne. The Highland games attract large numbers of spectators from all over the world.

Country Sports

The most popular country sports are hunting, shooting and fishing; these are old-established sports with a long history, and they still play a considerable part in the life of the countryside. The organisation which looks after their interests is the British Field Sports Society.

Hunting

In Britain hunting means primarily fox hunting on horseback with a pack of hounds especially bred for the purpose, but it also includes stag hunting, which preceded fox hunting and still goes on, mainly in Devon and Somerset; hunting the hare, either on foot with beagles or with harriers when the followers are mounted; and otter hunting along the banks of rivers. Hunting depends not on right but on permit: most landowners and farmers allow followers of recognised hunts to cross their property.

Fox hunting originated some 200 years ago. Originally a sport mainly for the landed gentry and local farmers, it has gradually widened its appeal, in spite of the fact that it is an expensive pastime for those who ride to hounds. The sport is not without its critics, but a large number of people, including many townsmen, take a keen interest in it and follow the hunt in cars, on bicycles or on foot.

There are between 190 and 200 packs of hounds in England and Wales, 13 in Northern Ireland, and 10 in Scotland. The packs range in size from the large establishments in the 'shires', i.e. the Midlands of England (for instance, the Belvoir, the Cottesmore, the Quorn, and the Fernie) where mounted followers may be two hundred or more, to small kennels in the west and north, where hunting is often on foot.

The fox hunting season proper starts in early November and lasts until April; it is preceded by cub hunting, i.e. the hunting of young foxes, when young hounds are taught the science of hunting. At the end of the season most hunts organise steeplechases, known as point-to-points, which are patronised by large crowds.

Hunts are financed mainly by the subscriptions of their members and with the aid of the farmers, whose support enables fox hunting to continue to flourish; sometimes however, the Master of Fox-hounds (MFH), who is in charge of the hunt, must bear a proportion of the cost.

Shooting

Game shooting as an organised country sport may be said to date from the early part of the nineteenth century; nowadays, game consists mainly of grouse, partridge, pheasant and wildfowl (duck and geese) although in some areas it also includes snipe, woodcock, wood pigeons and hares.

There is virtually no free shooting in any part of the United Kingdom. In the first place, a gun licence or a game licence must be applied for and purchased annually and secondly, nearly all game birds are to be found on privately owned land, shot over either by the owner and his friends or by syndicates which have leased the shooting. However, in some parts of the more remote countryside, rough shooting may be enjoyed in a less formal way. Much of the country's wildfowling is controlled by the Wildfowling Association of Great Britain and Northern Ireland, through its numerous clubs.

Grouse, partridge, pheasant and certain other game birds are 'preserved'; that is to say, there is a 'close season' during which they are protected under the game laws and allowed to breed in security, under the care of privately employed gamekeepers on numerous estates. The grouse, partridge and pheasant seasons open on 12th August, 1st September and 1st October, severally, and last for between four

and five months. Grouse shooting takes place mostly in Scotland, northern England and North Wales, where the main grouse moors are to be found; partridge and pheasant shooting in nearly every county in England, Wales and Scotland, the former mainly over farm land, and the latter in or near woodland; and wildfowling on the marshes and fenlands of the coastal areas.

A Game Research Association, founded in 1960 by a group of landowners, farmers and others interested in game conservation to take over part of the work on game research previously carried out by Imperial Chemical Industries, collects and collates information on a national scale and makes a detailed study of factors controlling game population, including diseases to which game birds are subject, game ecology and density, survival rates and movements of game in changing environments.

Deer stalking, which derives its name from the fact that, in order to get an effective shot, a very cautious approach is needed (since red deer have a keen scent, are far-sighted, and take alarm at the slightest sound), is mainly a sport of the Highlands of Scotland. The deer are preserved on privately owned tracts of land known as 'deer forests', ranging in size from 9,000 to over 30,000 acres. The statutory closed seasons are October to June, inclusive, for stags and February to October, inclusive, for hinds.

Fishing

Fishing is the most popular of the country sports in that it is within the reach of everyone in some form or another (from the small boy with his hook and line to the experienced fly-fisherman), and that many more people fish in their leisure hours than hunt or shoot.

The outstanding forms of the sport in Britain are salmon and trout fishing. Trout streams are to be found in most parts of the country, and in Scotland there are also many hundreds of lochs which provide good sport. Salmon fishing may be enjoyed on many rivers in England and North Wales, but the best salmon rivers are to be found in Scotland and Northern Ireland. In England and Wales the most widely practised form of fishing is for coarse fish (e.g., pike, perch, carp, roach, dace, tench, chub and bream), and the National Federation of Anglers (NFA) has some 350,000 members. Match angling—competitive fishing for coarse fish by weight—is a feature of the many angling clubs affiliated to the NFA, particularly in the midlands and north of England; a national angling championship, composed of 110 teams of 12 anglers, is organised annually by the NFA; and the NFA enters a team in the International Angling Competition.

Fishing around the coasts is another popular pastime, while deep-sea fishing for tuna and shark has gained many adherents during the past fifteen years.

Coastal and deep-sea fishing is free to all (except for salmon and sea trout fishing in Scotland) but, as a rule, freshwater fishing has to be paid for and local inquiries made about any permit or licence required. Most coarse fishing is let to angling clubs; trout and salmon fishermen either rent a stretch of river, join a club, stay at an hotel with its own fishing rights, or pay for the right to fish by the day, week or month. The cost of salmon fishing is often high.

Indoor Games

Indoor games played in Britain include *billiards*, *table tennis*, and *badminton*, which are enjoyed by large numbers of people, and for which facilities are provided in social clubs of every kind, including youth clubs; and games such as *real tennis* (a game which originated in thirteenth-century France), *squash rackets*, *rackets* and *fives*, which are less national games than games of the schools, universities and specialised clubs. Annual championships are held in all these games, the controlling bodies of

which are: the Billiards Association and Control Council; the Badminton Association of England and the Scottish Badminton Union; the Tennis, Rackets and Fives Association and the Squash Rackets Association. *Basket-ball*, an indoor variant of netball which originated in the United States of America, is also played in Britain, primarily by men. Matches in the game are included among the Olympic events. The controlling body in Britain is the Amateur Basket Ball Association.

Aquatic Sports

Aquatic sports include rowing, sailing, swimming, canoeing, punting and water ski-ing. The first three are the most commonly practised in Britain and are included in the Olympic events and the Commonwealth Games.

Rowing

Rowing as a pastime is enjoyed by people from all sections of the community, and as a sport it arouses considerable public interest. The two most popular annual rowing events are the University Boat Race, which originated in 1820 and has been rowed annually on the Thames in the early spring since 1836; and Henley Regatta, founded in 1839, which takes place each July at Henley-on-Thames in Oxfordshire. The University Boat Race, which provides one of the sights of London, is between eight-oared crews from Oxford and Cambridge over a course of some $4\frac{1}{4}$ miles between Putney and Mortlake; it is watched by many thousands of rival supporters gathered on both sides of the river. Considerable interest is also shown in the Head of the River Race from Mortlake to Putney, in March, in which between 200 and 300 eights row in procession—the largest assembly of racing craft in the world.

Crews from all over the world compete at Henley Regatta, where various kinds of races are rowed over a straight course of one mile 550 yards; for instance, for the Grand Challenge Cup, open to eight-oared crews from any nation, the Silver Goblets for pair oars, the Diamond Sculls for single scullers, and the Ladies Challenge Plate open to crews from schools and colleges in the United Kingdom. Many other riverside resorts arrange regattas every summer.

The oldest annual event in the English racing calendar is *Doggett's Coat and Badge*, founded in 1716. Originally for professional watermen and limited to six entrants, the race is now open to amateurs (who must, however, still be apprentice watermen) and, if necessary, it may be rowed in heats. The course is from London Bridge to Chelsea.

The art of oarsmanship is taught in many schools, universities and rowing clubs, including women's rowing clubs, throughout Britain; and women as well as men compete in the European rowing championships. The Amateur Rowing Association is the governing body of the sport.

Sailing

Enthusiasts have always devoted much of their leisure to yachting on the inland waters and round the coasts of Britain, but during the last fifteen years the sport, and in particular small boat sailing, has greatly widened its appeal. Sail numbers registered in the Royal Yachting Association's small boat classes in July 1962 were: International Fourteen Foot, 318; National Eighteens, 165; Enterprise, 3,301; Firefly, 1,892; Merlin Rocket, 1,110; Redwing, 156; Swordfish, 133; Twelve Foot, 1,554; Hornet, 280; Flying Fifteen, 317; and there is an even greater number of still smaller sailing boats not included in the register.

Most British yacht racing is administered by the Royal Yachting Association, subject to the rules of the International Yacht Racing Union, founded in 1907. The main event of the inshore yachting season is the annual regatta at Cowes in the Isle

of Wight, the headquarters of the Royal Yacht Squadron, founded in 1812. Other events include the Round the Isle of Wight race and the races arranged during the special yachting weeks (or fortnights) held at such sailing centres as Poole in Dorset, Bembridge in the Isle of Wight, Lowestoft in Suffolk, Harwich and Burnham-on-Crouch in Essex, Plymouth in Devon, Falmouth in Cornwall, and on the Scottish river Clyde.

Off-shore, or ocean, racing is based on rating and measurement rules drawn up by the Royal Ocean Racing Club, founded in 1925. Typical courses are: Cowes to Jersey (Channel Islands), Plymouth to La Rochelle (Charente Maritime, France), and Harwich to the Hook of Holland.

The famous yacht race for the America's Cup which was originally given by the Royal Yacht Squadron in 1851 and presented in 1857 to the New York Yacht Club for competition by the owners of *America*, the winner of the cup in 1851, is now held only at long intervals, owing to the expense involved. The last British challenger was the yacht *Sceptre*, in 1958; the holders—the United States—were challenged by Australia's *Gretel* in the autumn of 1962.

Swimming

Many children in Britain learn to swim at school, or during holidays at the seaside, and swimming as a summer pastime is enjoyed by millions of people. The existence of indoor swimming baths makes all-the-year swimming possible, and instruction and coaching is provided in some places by qualified teachers who hold certificates for elementary or advanced teaching and coaching awarded by the Amateur Swimming Association (ASA). (The Scottish counterpart is the Scottish Amateur Swimming Association.) The objects of the ASA are to promote the art of swimming and encourage its teaching to schoolchildren; to stimulate public opinion in favour of providing proper accommodation and facilities for learning to swim; to promote the game of water polo and the art of diving; and to draw up, publish and enforce uniform laws for the control and regulation of amateur swimming and water polo championships and competitions.

Attempts to swim the Channel between various points on the coasts of France and England—some of which are successful—are made by swimmers of many nationalities every summer.

Racing

Racing is a term which, in Britain, is taken to mean first and foremost, horse-racing. Other forms of racing include greyhound racing, coursing, pony-racing, trotting races, and pigeon flying.

Horse-racing

The history of the English turf proper began with the formation of the Jockey Club in 1750, although horse-racing was known in Tudor times and even earlier. The Jockey Club and the National Hunt Committee (founded in 1866) now exercise control over all horse-racing in England and indirectly in many other countries, and their rules are the basis of universal turf procedure.

There are two forms of racing: flat racing carried on from late March till November under the authority of the Jockey Club; and steeple-chasing, conducted under the rules of the National Hunt Committee.

The classic flat races are: the Two Thousand Guineas for colts and fillies, run on the Newmarket course, owned by the Jockey Club; the One Thousand Guineas for fillies only, also run at Newmarket; the Derby for colts and fillies, run at Epsom; the

Oaks for fillies only, also run at Epsom; and the St. Leger for colts and fillies, run at Doncaster. The Derby is the outstanding event in the racing calendar; it takes place annually in early June and the scene on Epsom Downs on Derby Day is one of the most colourful and exciting of the sporting year. The most fashionable race-meeting of the flat racing season takes place on the course at Ascot in Berkshire. This meeting, which is held in mid-June, is known as 'Royal Ascot', and is traditionally attended by the Sovereign; it includes the races for the Gold Cup and the Royal Hunt Cup.

The best known steeple-chase is the Grand National, first run in 1839, and run annually since then over the Aintree course near Liverpool. The race, which draws immense crowds and arouses widespread interest (and some criticism) tests the skill, stamina and courage of both horse and rider to the utmost. Most steeple-chase meetings are held during the period September to May, one of the most important being the National Hunt Festival Meeting at Cheltenham, in Gloucestershire, early in March.

In England and Wales there is racing on 66 racecourses (excluding point-to-point courses), at which there are approximately 650 days' racing annually; Scotland has seven racecourses, where racing takes place on an average of 50 days in the year. There are approximately 7,500 horses in training in Great Britain, at an average cost of 10 to 11 guineas a week each.

Horse racecourses must be licensed by the Jockey Club or the National Hunt Committee. Facilities for both cash and credit betting are provided on the course by bookmakers, who must have personal permits issued under the Betting and Gaming Act, 1960, and by totalisators operated by the Horserace Totalisator Board. Facilities for off-the-course cash betting are provided both in licensed off-the-course betting offices maintained by bookmakers holding personal permits under the Act or, through the post, to the course totalisators. It is illegal for persons under 18 years of age to place bets.

Under the Betting Levy Act, 1961, which provides for 'contributions for purposes connected with the advancement of horse-racing from persons engaged by way of business in effective betting transactions on horse races', a Horserace Betting Levy Board has been set up, with power to impose a levy both on bookmakers and the Horserace Totalisator Board. The latter is empowered to deduct from money staked with the totalisator such percentage as it may determine, and the practice is to deduct 15 per cent from the losing stakes in the win, place and forecast pools, and 10 per cent of the double and treble pools; this provides an average yield of approximately 11 per cent of the total annual turnover. The Levy Board distributes its revenue from bookmakers, together with the contribution from the totalisators, for purposes conducive to the improvement of horse-racing and horse breeding and for the advancement and encouragement of veterinary science and education.

Greyhound Racing

The racing of greyhounds after a mechanical hare started in Britain in 1926, when the first modern greyhound track was opened at Belle Vue, Manchester. There are now some 200 licensed tracks in operation, nearly all of which are situated in or on the outskirts of large towns. Racing usually continues throughout the year (although betting is limited by the Betting and Lotteries Act, 1934, to 104 days in any year), and meetings (which usually consist of eight races) are generally held two or three times a week. The licensing authorities for greyhound racing tracks are the county and county borough councils. Some twenty million people a year visit the tracks.

The main authority of the sport is the National Greyhound Racing Club, founded in 1928; its functions include drawing up the rules of greyhound racing and exercising

strict discipline over all aspects of the sport. The National Greyhound Racing Society—an association of 65 of the leading tracks—accepts the rules of the National Greyhound Racing Club. Most of the classic greyhound races, including the Derby at the White City, the Laurels at Wimbledon, the St. Leger at Wembley, and the Cesarewitch at West Ham, take place in the London area, although many other large centres have their 'big' nights.

There is a considerable volume of betting at greyhound race-meetings, both with bookmakers and on the totalisator. Under the 1934 Act, the occupier of any licensed greyhound track may operate a totalisator on the 104 'appointed days'; 10 per cent of the stake money must be paid to the Government; up to 6 per cent may be deducted for operational expenses before successful backers are paid. Under the Betting and Gaming Act, 1960, the 'copyright' in tote odds granted to the Racecourse Betting Control Board in respect of horse-racing also applies to the occupiers of licensed greyhound tracks.

Riding

Interest in the art of horsemanship continues to increase steadily, and many more people have learned to enjoy riding as a pastime since the end of the second world war than at any time since the advent of the motor car. There are some 1,200 riding schools in Britain, many of a high standard, and about 50 new schools are opened each year; membership of the British Horse Society has risen to about 10,500; some 150 riding clubs have been established since 1945; and the Pony Club (open to young people up to the age of seventeen years) now has an overall membership of about 60,000 members. There are over 700 branches of the Pony Club throughout the world, of which 200 are attached to hunts in Britain, and the remainder are overseas.

The British Horse Society, as the national equestrian federation of Great Britain, is the authority on all matters relating to horses and ponies, including breeding, training, riding, show jumping and dressage, and is responsible for preparing equestrian teams for the Olympic Games and all international events. The Society is also the parent body of the Pony Club and the riding clubs, and organises and provides tests, lectures, demonstrations, courses and examinations to promote horsemanship and horsemastership.

Horse trials of all kinds are held throughout Britain during the spring and summer. The three-day trials held each year—in April at Badminton Park, Gloucestershire, and in September at Burghley House, Lincolnshire—are among the outstanding equestrian events of the year. These trials include dressage, cross-country riding, and show jumping; some 25 one-day trials on similar lines are held annually.

Show Jumping

Show jumping competitions are held each year at over 1,000 shows. The main events take place during the Royal International Horse Show (held at the White City, London, under the auspices of the British Horse Society towards the end of July)—the outstanding contest being the individual jumping championship for the King George V Gold Cup. Jumping competitions are also a feature of the Horse of the Year Show, which takes place in October at Wembley and is acknowledged to be one of the finest indoor horse shows in the world.

In recent years show jumping has attracted vast audiences. Its popularity may be gauged from the fact that the total membership of the British Show Jumping Association has risen to well over 7,000. The number of horses and ponies registered is approximately 5,000 and over £100,000 is distributed annually in prize money.

The selection of British riders and horses taking part in international competitions (whose successes have materially contributed to the increased popularity of show jumping) is the responsibility of the executive committee of the Association.

Boxing

Boxing as an English sport probably originated in Saxon times. Its modern form, and the one that has been adopted in many overseas countries, dates from 1865 when the Marquess of Queensberry drew up a set of rules which eliminated much of the brutality that had hitherto characterised prize fighting, and made the basis of the sport a trial of strength and skill.

Nowadays, many boys learn to box at school and in boys' clubs, and there are various amateur boxing competitions carried out according to the rules of the Amateur Boxing Association (ABA), which controls all amateur boxing, including schoolboy boxing, club and association boxing, and boxing in the three Services.

Professional boxing is covered by the British Boxing Board of Control, founded in 1929. The board has strict medical regulations which provide for the examination of boxers before each contest, and the appointment of inspectors to ensure that the regulations are observed and that all contests are 'vetted' to safeguard against over-matching and exploitation.

Championships at fixed weights have been the rule in boxing contests since the presentation of the Championship Challenge Belts by the late Lord Lonsdale in 1909. Competitions organised by the ABA are decided at ten weights: flyweight, bantamweight, featherweight, lightweight, light welterweight, welterweight, light middleweight, middleweight, light heavyweight and heavyweight. In professional boxing there are no light welterweight or light middleweight classes.

Wrestling and Judo

Wrestling is one of the oldest sports in the world. Nowadays the style most commonly used in Britain is the 'free' style, which evolved from the Catch-as-Catch-Can or Lancashire style, but Cumberland and Westmorland wrestling is still practised in the north of England and in Scotland, and Cornish style wrestling (in which the contestants wear rough canvas jackets by which all the holds must be taken) takes place in Cornwall. Wrestling in the free and Graeco-Roman styles are used at the Olympic Games; in the Commonwealth Games only free style is wrestled.

Amateur wrestling in Britain is governed by the British Amateur Wrestling Association, which is affiliated to the International Amateur Wrestling Federation, under the rules of which all wrestling is conducted. Professional wrestling is usually in the 'all-in' or 'free' style, which is not the same as the free style used in amateur wrestling. Judo, a Japanese form of wrestling, has a large following, and is governed by the British Judo Association which has coaching schemes assisted by the Ministry of Education.

Mountaineering

Mountaineering in Britain consists mainly of fell (or hill) walking, rock climbing, and, in winter when conditions are suitable, snow and ice climbing on the higher hills of Scotland, northern England and North Wales. Rock climbing is practised on the crags of Snowdonia in North Wales, in the Highlands of Scotland, Skye, the English Lake District, and Derbyshire, as well as on many smaller outcrops. Climbs are graded from 'Easy' to 'Exceptionally Severe'—the technical difficulties of the higher grades comparing with any that occur in other parts of the world. The popularity of

mountaineering has greatly increased since the end of the second world war, and a very large number of clubs (ranging from purely local organisations to large bodies such as the Climbers' Club, the Scottish Mountaineering Club, and the Fell and Rock Climbing Club) exist throughout the country. The Alpine Club, founded in London in 1857, is the oldest mountaineering club in the world; the representative body of the sport is the British Mountaineering Council; the Mountaineering Association organises courses of instruction in climbing both in Britain and the Alps.

British mountaineers have taken a leading part in exploring most of the great ranges of the world and in climbing their peaks, for example the first ascent of the Matterhorn in 1865, of Everest in 1953, and of Kangchenjunga in 1955.

Motor Racing

Motor racing is one of the most popular spectator sports in Britain; more racing and sports cars have been built in Britain than in any other country; and British drivers (including women drivers) have an international reputation second to none.

British cars and British drivers take part in the international rallies and world classic races which are the main features of the sport. They include the British classic races—the British Grand Prix (held at Aintree), and the Tourist Trophy for sports cars (first held in 1905 in the Isle of Man, later at Dundrod in Northern Ireland, and now at Goodwood, Sussex). There are also British national race meetings and British national rallies, as well as several thousand day and night rallies and trials, endurance tests, hill climbs and other events, arranged by various driving clubs, of which there are over 500 in Great Britain.

The best-known motor racing circuits (in addition to that at Goodwood) are those at Silverstone, Northamptonshire; Crystal Palace, London; Brands Hatch, Kent; Snetterton, Norfolk; Mallory Park, Leicestershire; Oulton Park, Cheshire; Aintree, near Liverpool; and Charterhall, Berwickshire, in Scotland. The controlling body of motor racing in Britain is the Royal Automobile Club (RAC), founded in 1897; the RAC is represented on the Fédération Internationale de l'Automobile, which draws up the regulations for international motor racing.

In addition to motor car racing, there are motor cycle races—the most important contest of the year is for the Isle of Man Tourist Trophy—and motor cycle speedway racing, introduced into Britain in 1928, and governed by the Speedway Control Board.

Cycling

The internationally recognised body for cycle racing in the United Kingdom is the British Cycling Federation. It controls track racing and massed start racing in Britain, and is concerned with the cycling events in the Olympic and Commonwealth Games and the annual world championship. Time trials are organised by the Road Time Trials Council.

Touring by bicycle is also a popular pastime, and both the British Cycling Federation and the Cyclists' Touring Club (CTC) cater for this. The CTC is the oldest touring club in the world and has a membership of some 40,000. Its representatives in all parts of the United Kingdom give advice and practical help to touring cyclists; its fifty district associations arrange holiday and week-end tours, and competitions, rallies and rides of all kinds; and its travel department gives CTC members every facility, both at home and abroad, from the provision of itineraries to the supplying of tickets, maps and other essential requirements.

Rifle Shooting

Full-bore (.303) rifle shooting is organised by the National Rifle Association, founded in 1860. The Imperial Meeting is held annually at Bisley Camp, Surrey, and is open to subjects of the Queen, and for certain competitions to all-comers. The meeting extends over 17 days: the first week consists of team and individual competitions for members of the armed forces, and there are three days for schools only. The premier award of the meeting is the Queen's Prize, which attracts about 1,250 entries.

Small-bore (.22) rifle shooting—carried out either on indoor ranges of 15 to 25 yards in length or on open ranges up to 200 yards—is also widely practised in Britain. Some 4,000 clubs throughout the country are affiliated to county rifle associations and the National Small-Bore Rifle Association (NSRA), which arranges inter-club and inter-county competitions of various kinds for teams and individuals. The NSRA also organises a National Bisley Meeting (usually attended by about 1,500 competitors), a Scottish meeting, and a pistol shooting competition at Bisley. International small-bore rifle matches are fired against teams from overseas countries, and British teams are entered for the world championships and the competitions in the Olympic Games.

APPENDIX

NOTES FOR VISITORS TO THE UNITED KINGDOM

Currency

The unit of currency is the pound sterling (£), which is divided into 20 shillings (s.). The shilling is divided into 12 pennies or pence (d.). Prices are often quoted in guineas, the guinea (an old coin no longer in circulation) being £1 1s.

Coins in common use are: halfpenny, penny, threepenny piece, sixpence, shilling, two shilling piece (florin) and half-crown (2s. 6d.). Silver and cupro-nickel coins (3d., 6d., 1s., 2s., 2s. 6d., 5s.) are legal tender for payments up to £2; nickel-brass threepenny pieces up to 2s.; and bronze ($\frac{1}{2}$ d. and 1d.) up to 12d.

Bank of England notes are issued in denominations of 10s., £1 and £5. Notes of £1 and 10s. are legal tender in the United Kingdom for any amount; notes of £5 are legal tender in England and Wales only.

Notes are issued by Scottish banks in denominations of £1, £5, £10, £20, £50 and £100; though not legal tender, these notes are generally accepted in Scotland and in some other parts of the United Kingdom. Northern Ireland banks issue notes with denominations of £1, £5, £10, £50 and £100.

Exchange Facilities and Control

Persons coming to the United Kingdom may bring in notes in any currency, travellers' cheques, letters of credit, etc., without limit; and although visitors leaving the United Kingdom may normally only take with them sterling notes to the value of £50, they can make arrangements for up to £100 to be changed into travellers' cheques available in their own country. Currency can be exchanged at banks and there are *bureaux de change* at all the main ports and at London and Prestwick airports, the main London air terminals and Victoria Station, London.

Regulations relating to exchange control in the United Kingdom are somewhat complex and are subject to modification from time to time. Accordingly, any person who is going to live in the United Kingdom or who desires information affecting his own particular circumstances is advised to consult his own or a United Kingdom bank; banks in Britain are experienced in all aspects of exchange control.

In general, persons visiting the country for a limited period are regarded as non-resident; any sterling account which they open with a United Kingdom bank will be designated an External Account and funds in it may be used without formality to make payments anywhere in the world. Persons intending to reside permanently in the United Kingdom are subject to the provisions of the Exchange Control Act, 1947, and will require permission to make payments outside the Scheduled Territories.

Income Tax

The question of when a visitor to the United Kingdom *who is not domiciled there* is chargeable for income tax as a 'resident' is complicated. The main qualifications are:

1. A visitor is resident in the United Kingdom for any income tax year (beginning 6th April) in which he is in the United Kingdom for a period or periods equal, in the whole, to six months.
2. Even if a visitor does not stay six months in any one year he is regarded as being resident if he visits the United Kingdom regularly for substantial periods of time.

3. If a person maintains a place of abode in the United Kingdom available for his use, he is regarded as resident for any year in which he pays a visit, of whatever length.

Double Taxation Agreements: A visitor who is regarded for tax purposes as resident in the United Kingdom, and who is liable to United Kingdom tax on income arising in another country and taxed there, may be entitled to a reduction of liability to United Kingdom income tax.

Information on specific questions relating to income tax may be obtained from The Secretary, The Board of Inland Revenue, Somerset House, London, W.C.2 (or for residents in Great Britain, from local offices).

Travel and Tourist Information

Information about travel to Britain can be obtained in the major cities of the world from travel agents, airline, shipping line and railway offices, and British Government offices abroad, or directly from the headquarters of the British Travel and Holidays Association (BTHA), 64 St. James's Street, London, S.W.1 (Telephone: Mayfair 9191). The Association has overseas offices in Argentina (Buenos Aires), Australia (Sydney), Canada (Toronto and Vancouver), France (Paris), Germany (Frankfurt-am-Main), Italy (Rome), the Netherlands (Amsterdam), South Africa (Johannesburg), Sweden (Stockholm) and the United States (Chicago, Los Angeles and New York); and representatives in Brazil (São Paulo), New Zealand (Auckland) and Belgium (Brussels). Information available from the Association includes details of places of interest, lists of exhibitions, fairs, festivals, concerts and special events of interest to overseas visitors to Britain, with hours of opening, etc.; and advice on motoring and touring itineraries. The Association publishes an annual guide, *Hotels and Restaurants in Britain*, listing accommodation, services and charges, and booklets giving particulars of youth hostels, holiday camps, and camping and caravan sites.

For information about the principal events of the day in London, visitors may use the Teletourist Service (operated by the General Post Office in conjunction with the BTHA and the BBC). The information can be obtained in four languages by dialling the following telephone numbers: ASK 9211 (English), ASK 9311 (French), ASK 9411 (German), and ASK 9511 (Spanish). If using a call box, the caller should refer to the instructions notice. The weather forecast for the London area is also given in the French, German, and Spanish services; in English it can be obtained by calling WEA 2211.

Demand for hotel space in London is heavy, especially in the summer; the London Hotels Information Service, 88 Brook Street, London, W.1 (Mayfair 5414), gives information free of charge to overseas visitors as to where accommodation is available.

Additional information on travel in Wales, Scotland and Northern Ireland is obtainable from: the Welsh Tourist and Holidays Board, 7 Park Place, Cardiff; the Scottish Tourist Board, 2 Rutland Place, West End, Edinburgh, 1; the Northern Ireland Tourist Board, 10 Royal Avenue, Belfast, and 13 Lower Regent Street, London, S.W.1.

Passports, Visas, Registration

As a general rule travellers entering the United Kingdom must have a valid passport. Foreign nationals must obtain leave to land in the United Kingdom from an immigration officer at the point of entry and must also have a visa issued by British Consular authorities abroad, but visas are not required for citizens of the following countries: Andorra, Austria, Belgium, Denmark, Finland, France, German Federal Republic, Greece, Iceland, Italy, Liechtenstein, Luxembourg, Monaco, Morocco, Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, Turkey, the United States of America, and all countries in Central and South America. Citizens of the Republic of Ireland do not require either passport or visa (but, with residents of Commonwealth countries, are subject to immigration control if seeking employment in Britain: see p. 520).

Nationals of the following countries who wish to visit the United Kingdom for social or holiday visits of up to three months may use instead of a passport their national

identity card (in the Netherlands a 'toeristenkaart', obtainable from town halls) in conjunction with a special Visitor's Card (obtainable from travel agents in the tourist's own country): Belgium, France, Germany (Federal Republic and West Berlin), Liechtenstein, Luxembourg, Monaco, Netherlands, and Switzerland. A passport must, however, still be used where the purpose of the visit is other than touristic, or where a stay of longer than three months is intended.

Foreign visitors who are sixteen years of age or over must register with the police three months after their arrival.

Customs Duties and Purchase Tax

The personal baggage of persons entering the United Kingdom is subject to Customs examination. Many articles are liable to Customs Duty and a number to purchase tax. Failure to make a complete declaration can involve heavy penalties; but, although there is no legal entitlement to them, certain concessions are given to travellers who properly declare their belongings.

Used personal effects, including tools of trade and articles of professional use, which have been in the ownership and use of a traveller for a considerable period and are not intended for other persons or for sale, may be admitted free of duty and purchase tax, as may also used furniture and domestic articles belonging to persons transferring residence to the United Kingdom. Small quantities of dutiable goods, including tobacco, wine and spirits, and perfume, carried by travellers for their personal use are allowed to pass free of duty within fixed limits.

Inquiries on importing personal and household effects should be addressed to the Secretary, H.M. Customs and Excise, King's Beam House, London, E.C.3.

There are purchase tax concessions for overseas visitors shopping in Britain. Many of the principal stores are able to send goods to an address abroad free of purchase tax; and under the Personal Exports scheme, if the tax-free value of goods bought at one time is £5 or more, a visitor may have them delivered free of tax to the seaport or airport by which he is leaving the country.

Import of Domestic Animals and Birds

All cats and dogs brought into the United Kingdom have to undergo six months' quarantine; and the landing of the animals must be authorised by a licence issued by the appropriate Agricultural Department for England and Wales, Scotland or Northern Ireland (see Chapter 11). The department will provide a list of approved carrying agents and quarantine kennels. An annual licence (obtainable at any post office) is needed for a household dog aged 6 months or more.

The import of birds of the parrot family, if they are personal pets, is allowed under licence, subject to certain conditions, by the Agricultural Departments. Imports of live poultry are permitted only from certain countries.

Motor Vehicles and Driving Licences

Regulations concerning the temporary import of cars, motor cycles, etc., by visitors to Britain are best obtained from the national motoring organisations in the visitor's country of residence, which will normally issue a Customs '*carnet/triptyque*'. (For an experimental period of two years from August 1961 a simple form giving brief identification details has replaced the *carnet/triptyque*.) A private motor vehicle may be temporarily imported free of road taxation; after 90 days a motor licence is necessary. Third party insurance is compulsory.

A visitor holding a current International Driving Permit or a current domestic driving licence for his own country is entitled to drive without obtaining a British driving licence during the currency of his own permit or licence, subject to a maximum of 12 months. Any person taking up permanent residence must take a driving test to secure a British licence (see p. 378), which costs 15s. and is valid for three years.

The rule of the road is to keep LEFT. Road signs are illustrated and explained in *The Highway Code* (published by H.M. Stationery Office).

Social Security Benefits

Eligibility for the main social security benefits is dependent on (a) sufficient National Insurance contributions having been paid under the United Kingdom scheme, or (b) the existence of a reciprocal agreement between the United Kingdom and the previous country of residence of the claimant (see p. 137). Information on specific points may be obtained from the Ministry of Pensions and National Insurance, 10 John Adam Street, London, W.C.2.

To qualify for family allowances, a residence qualification must be fulfilled, varying in length according to the nationality and previous country of residence of the applicant.

Health Services

The services provided under the National Health Service are available to everyone in Great Britain without regard to residence, nationality or insurance qualification. Immigration authorities have been instructed, however, to refuse admission to the country to any person coming solely for the purpose of securing free treatment under the Health Service.

Employment Permits

Persons from countries other than members of the British Commonwealth and the Irish Republic are admitted to the United Kingdom to take up employment with a particular employer only if they have a permit issued by the Ministry of Labour (see p. 453). Until 1st July, 1962, citizens of the Commonwealth and of the Irish Republic had free entry into the United Kingdom, but since that date they have been subject to control under the Commonwealth Immigrants Act, 1962 (see p. 454), and must obtain an employment voucher issued by the Ministry of Labour before entering Britain for full-time employment.

Visitors of foreign nationality wishing to set up in any business or profession in Britain must ask for permission from the Under-Secretary of State, Home Office, Aliens Department, Princeton House, 271 High Holborn, London, W.C.1.

BRITISH WEIGHTS AND MEASURES AND THEIR METRIC EQUIVALENTS

MEASURES OF LENGTH

	1 inch	=	2.54 centimetres
12 inches	=	1 foot	= 30.48 centimetres
3 feet	=	1 yard	= 0.914 metre
1,760 yards	=	1 mile	= 1.609 kilometres

MEASURES OF AREA

	1 square inch	=	6.451 square centimetres
144 square inches	=	1 square foot	= 929.03 square centimetres
9 square feet	=	1 square yard	= 0.836 square metre
4,840 square yards	=	1 acre	= 0.405 hectare
640 acres	=	1 square mile	= 2.59 square kilometres

MEASURES OF CAPACITY

	1 gill	=	0.142 litre	2 gallons	=	1 peck	=	9.092 litres	
4 gills	=	1 pint	=	0.568 litre	4 pecks	=	1 bushel	=	36.37 litres
2 pints	=	1 quart	=	1.136 litres	8 bushels	=	1 quarter	=	2.909 hectolitres
4 quarts	=	1 gallon	=	4.546 litres					

MEASURES OF WEIGHT (AVOIRDUPOIS)

		1 ounce (oz.)	= 28.350 grams
16 oz.	= 1 pound (lb.)		= 0.454 kilogram
14 lb.	= 1 stone (st.)		= 6.35 kilograms
28 lb.	= 1 quarter (qtr.)		= 12.7 kilograms
4 quarters (112 lb.)	= 1 hundredweight (cwt.)		= 50.8 kilograms
20 cwt. (2,240 lb.)	= 1 long ton		= 1.016 metric tons
2,000 lb.	= 1 short ton		= 0.907 metric ton

DOUBLE CONVERSION TABLES FOR WEIGHTS AND MEASURES

(Note: the central figures represent either of the two columns beside them, as the case may be—e.g., 1 centimetre = 0.394 inch, and 1 inch = 2.540 centimetres.)

Centi- metres		Inches		Metres		Yards		Kilo- metres		Miles		Hec- tares		Acres	
2.540	1	0.394	0.914	1	1.094	1.609	1	0.621	0.404	1	2.471				
5.080	2	0.787	1.829	2	2.187	3.219	2	1.243	0.809	2	4.942				
7.620	3	1.181	2.743	3	3.281	4.828	3	1.864	1.214	3	7.413				
10.160	4	1.575	3.658	4	4.374	6.437	4	2.485	1.619	4	9.884				
12.700	5	1.969	4.572	5	5.468	8.047	5	3.107	2.023	5	12.355				
15.240	6	2.362	5.486	6	6.562	9.656	6	3.728	2.428	6	14.826				
17.780	7	2.756	6.401	7	7.655	11.266	7	4.350	2.833	7	17.298				
20.320	8	3.150	7.315	8	8.749	12.875	8	4.971	3.237	8	19.769				
22.860	9	3.543	8.230	9	9.843	14.484	9	5.592	3.642	9	22.240				
25.400	10	3.937	9.144	10	10.936	16.094	10	6.214	4.047	10	24.711				

Kilo- grams		Av. Pounds		Litres		Pints		Litres		Gallons		Hecto- litres per Hectacre		English Bushels per Acre	
0.454	1	2.205	0.568	1	1.760	4.546	1	0.220	0.898	1	1.113				
0.907	2	4.409	1.136	2	3.520	9.092	2	0.440	1.796	2	2.226				
1.361	3	6.614	1.705	3	5.279	13.638	3	0.660	2.695	3	3.340				
1.814	4	8.818	2.273	4	7.039	18.184	4	0.880	3.593	4	4.453				
2.268	5	11.023	2.841	5	8.799	22.730	5	1.100	4.491	5	5.566				
2.722	6	13.228	3.409	6	10.559	27.276	6	1.320	5.389	6	6.679				
3.175	7	15.432	3.978	7	12.319	31.822	7	1.540	6.287	7	7.793				
3.629	8	17.637	4.546	8	14.078	36.368	8	1.760	7.186	8	8.906				
4.082	9	19.842	5.114	9	15.838	40.914	9	1.980	8.084	9	10.019				
4.536	10	22.046	5.682	10	17.598	45.460	10	2.200	8.982	10	11.132				

THERMOMETRICAL TABLE

100° Centigrade = 212° Fahrenheit = 80° Réaumur

0° Centigrade = 32° Fahrenheit = 0° Réaumur

To convert:

°Fahrenheit into °Centigrade: subtract 32, then multiply by $\frac{5}{9}$;

°Centigrade into °Fahrenheit: multiply by $\frac{9}{5}$, then add 32;

°Fahrenheit into °Réaumur: subtract 32, then multiply by $\frac{4}{9}$.

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This bibliography is in no sense comprehensive: it is only intended to be a guide to further reading on the subjects covered in this handbook.

Readers in the United Kingdom are asked to note that the Central Office of Information reference documents marked with an asterisk and listed as free, are only available free of charge from British Information Offices overseas; in the United Kingdom they may be obtained, on payment of a small charge, from the Central Office of Information, Reference Division Distribution Unit, Hercules Road, Westminster Bridge Road, London, S.E.1. In the United States, equivalent free material can be supplied by British Information Services, 45 Rockefeller Plaza, New York 20, N.Y.

Certain reference pamphlets produced by the Central Office of Information can be purchased from Her Majesty's Stationery Office and its agents overseas. These pamphlets are listed here with their respective prices (postage extra).

Acts of Parliament referred to in the text can be obtained at varying prices from H.M. Stationery Office and its agents overseas.

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Census 1951. Northern Ireland. Final Report	<i>Belfast, HMSO</i>	1955	15	0
Census of Northern Ireland 1961. Preliminary Report	<i>Belfast, HMSO</i>	1961	4	0
Census 1961. Scotland Preliminary Report	<i>HMSO</i>	1961	5	0
Census of Scotland 1951.				
Vol. I. City and County Reports ¹				
Part 1. City of Edinburgh	<i>HMSO</i>	1952	7	6
Part 2. City of Glasgow	<i>HMSO</i>	1952	10	0
Vol. II. Population of Towns and Larger Villages (excluding Burghs) and of Urban and Rural Areas	<i>HMSO</i>	1952	7	0
Vol. III. Population, Age, Sex and Conjugal Condition, Birth- place and Nationality, Gaelic-Speaking Population and Housing	<i>HMSO</i>	1955	32	6
Vol. IV. Occupations and Industries	<i>HMSO</i>	1957	120	0

¹ Series of reports comprising statistics of predominantly local interest.

			s.	d.
Census of Wales (including Monmouthshire) 1961. Report on Welsh-Speaking Population	<i>HMSO</i>	1962	10	0
External Migration: A Study of the available Statistics 1815-1950, by N. H. Carrier and J. R. Jeffery	<i>HMSO</i>	1953	8	6
Matters of Life and Death [<i>prepared by the General Register Office</i>]. 4th edn	<i>HMSO</i>	1959	1	6
Ulster Year Book 1960-62	<i>Belfast, HMSO</i>	1962	10	3
Royal Commission on Population. Report Cmd 7695	<i>HMSO</i>	1949	9	0
Residence in the United Kingdom: Notes for the Guidance of Persons from Overseas	Reference Paper R.4630 <i>COI</i>	1960		free*
Women in Britain	Reference Paper R.4497 <i>COI</i>	1960		free*

2. GOVERNMENT

General Survey

JENNINGS, Sir IVOR. The British Constitution. 4th edn	<i>Cambridge University Press</i>	1961	21	0
——— The Law and the Constitution. 5th edn	<i>University of London Press</i>	1959	18	0
——— The Queen's Government	<i>Penguin Books</i>	1954	3	6
KEETON, GEORGE W., <i>General Editor</i> . British Commonwealth: the Development of its Laws and Constitutions, Vol. I				
Part 1. England and Wales, Northern Ireland and the Isle of Man, by George W. Keeton, Dennis Lloyd and others	<i>Stevens</i>	1955	63	0
Part 2. Scotland and the Channel Islands, by T. B. Smith and L. A. Sheridan	<i>Stevens</i>	1955	63	0
KEIR, Sir D. LINDSAY. The Constitutional History of Modern Britain since 1485. 6th edn	<i>Black</i>	1960	30	0
LE MAY, G. British Government 1914-1953: Select Documents	<i>Methuen</i>	1954	30	0
MARSHALL, GEOFFREY and MOODIE, GRAEME C. Some Problems of the Constitution	<i>Hutchinson</i>	1959	30	0
MORRISON, HERBERT [now <i>Lord</i>]. Government and Parliament: A Survey from the Inside. rev. edn	<i>Oxford University Press</i>	1959	30	0
WADE, E. C. S. and PHILLIPS, G. G. Constitutional Law. 6th edn	<i>Longmans</i>	1960	42	0
WILSON, F. M. G. Administration in Action	<i>Allen & Unwin</i>	1961	35	0

The Monarchy

LAIRD, DOROTHY. How the Queen Reigns	<i>Hodder & Stoughton</i>	1959	25	0
MORRAH, DERMOT. The Work of the Queen	<i>Kimber</i>	1959	21	0
TANNER, LAWRENCE E. The History of the Coronation	<i>Pitkin</i>	1952	17	6
WHEELER-BENNETT, JOHN W. King George VI: His Life and Reign	<i>Macmillan</i>	1958	60	0
Queen and People, by Dermot Morrah	For <i>COI, HMSO</i>	1959	2	0
British Constitutional Monarchy, by Sir Ernest Barker. rev. edn	<i>COI</i>	1958		free*
The Monarchy in the United Kingdom.				
Reference Pamphlet RF.P.4526 <i>COI</i>		1960		free*

MACKENZIE, W. J. M. <i>and</i> GROVE, J. W. Central Administration in Britain	<i>Longmans</i>	1957	30 0
MACKINTOSH, JOHN P. The British Cabinet	<i>Stevens</i>	1962	50 0
Know Your Ministry: A Description of Government Departments Whose Operations Affect the Conduct of Business	<i>Europa Publications</i>	1959	25 0
New Whitehall Series: For the Royal Institute of Public Administration			
The Colonial Office, by <i>Sir</i> Charles Jeffries	<i>Allen & Unwin</i>	1956	18 0
Her Majesty's Customs and Excise, by <i>Sir</i> James Crombie	<i>Allen & Unwin</i>	1962	30 0
The Foreign Office, by <i>Lord</i> Strang <i>and others</i>	<i>Allen & Unwin</i>	1955	18 0
The Home Office, by <i>Sir</i> Frank Newsam	<i>Allen & Unwin</i>	1954	18 0
The Ministry of Labour and National Service, by <i>Sir</i> Godfrey Ince	<i>Allen & Unwin</i>	1960	25 0
The Ministry of Pensions and National Insurance, by <i>Sir</i> Geoffrey King	<i>Allen & Unwin</i>	1958	18 0
The Department of Scientific and Industrial Research, by <i>Sir</i> Harry Melville	<i>Allen & Unwin</i>	1962	25 0
The Scottish Office and other Scottish Departments, by <i>Sir</i> David Milne	<i>Allen & Unwin</i>	1958	21 0
The Ministry of Transport and Civil Aviation, by <i>Sir</i> Gilmour Jenkins	<i>Allen & Unwin</i>	1959	21 0
The Ministry of Works, by <i>Sir</i> Harold Emmerson	<i>Allen & Unwin</i>	1956	15 0
Government Administration in Wales	Cmnd 631 <i>HMSO</i>	1959	1 9
Handbook on Scottish Administration	<i>HMSO</i>	1956	2 6
Her Majesty's Ministers and Heads of Public Departments [5 issues a year]	<i>HMSO</i>		1 9
Royal Commissions and Similar Bodies in Britain	Reference Paper R.4785 <i>COI</i>	1960	free*

The Civil Service

BRIDGES, <i>Sir</i> EDWARD [now <i>Lord</i>]. Portrait of a Profession: The Civil Service Tradition	<i>Cambridge University Press</i>	1950	3 6
CAMPBELL, G. A. The Civil Service in Britain	<i>Penguin Books</i>	1955	3 6
DUNNILL, FRANK. The Civil Service: Some Human Aspects	<i>Allen & Unwin</i>	1956	18 0
British Civil Service 1854-1954, by Wyn Griffith	<i>HMSO</i>	1954	1 0
Royal Commission on the Civil Service 1953-55 (Priestley Commission). Report	Cmd 9613 <i>HMSO</i>	1955	6 6
The British Civil Service	Reference Paper R.4985 <i>COI</i>	1961	free*

Local Government

CLARKE, J. J. The Local Government of the United Kingdom. 15th rev. edn	<i>Pitman</i>	1956	30 0
——— Outlines of Local Government of the United Kingdom. 19th rev. edn	<i>Pitman</i>	1960	25 0
HART, WILLIAM O. Introduction to the Law of Local Government and Administration. 6th rev. edn	<i>Butterworth</i>	1957	45 0
JACKSON, R. M. The Machinery of Local Government	<i>Macmillan</i>	1958	30 0
JACKSON, W. ERIC. The Structure of Local Government in England and Wales. 4th edn	<i>Longmans</i>	1960	26 0
——— Local Government in England and Wales, new edn	<i>Penguin Books</i>	1959	3 6

			s.	d.
JENNINGS, Sir IVOR, edited by J. A. G. Griffith. Principles of Local Government. 4th edn	<i>University of London Press</i>	1960	18	0
LAYTON, ELIZABETH. Building by Local Authorities	<i>Allen & Unwin</i>	1962	40	0
MARSHALL, A. H. Financial Administration in Local Government	<i>Allen & Unwin</i>	1960	32	0
Municipal Year Book	For 1962 <i>Municipal Journal</i>	1962	105	0
SCHOFIELD, A. N. Local Government Elections. 4th edn	<i>Shaw</i>	1962	105	0
Annual Report				
Ministry of Housing and Local Government				
	For 1961 Cmnd 1725 <i>HMSO</i>	1962	4	6
Guides to Official Sources, No. 3. Local Government Statistics	<i>HMSO</i>	1953	1	6
Local Government Finance (England and Wales) General Grant Increase Order, 1961	<i>HMSO</i>	1962	1	5
Local Government Finance (Scotland) General Grant (Scotland) Order, 1960	<i>HMSO</i>	1960		4
London Government. Government Proposals for Reorganisation				
	Cmnd 1562 <i>HMSO</i>	1961	1	0
Report of Royal Commission on Local Government in Greater London 1957-60	Cmnd 1164 <i>HMSO</i>	1960	28	0
Revaluation of Rates in 1963 (England and Wales) Cmnd 1663	<i>HMSO</i>	1962	1	0
Local Government in Britain				
	COI Reference Pamphlet RF.P.4945 <i>HMSO</i>	1961	2	6
The Corporation of the City of London				
	Reference Paper R.4864 <i>COI</i>	1961		free*

The Fire Service

BLACKSTONE, G. V. A History of the British Fire Service	<i>Routledge</i>	1957	60	0
Fire Protection Year Book and Directory 1962	<i>Benn</i>	1961	20	0
Annual Reports				
Fire Research Board	For 1961 <i>HMSO</i>	1962	8	6
H.M. Chief Inspector of Fire Services (England and Wales)				
	For 1961 Cmnd 1763 <i>HMSO</i>	1962	1	6
H.M. Inspector of Fire Services for Scotland				
	For 1961 Cmnd 1682 <i>HMSO</i>	1962	1	6
The Fire Services in Britain	Reference Paper R.4990 <i>COI</i>	1961		free*

3. LAW AND ORDER

The Law

ALLEN, Sir C. K. Administrative Jurisdiction	<i>Stevens</i>	1956	15	0
——— Law and Orders	<i>Stevens</i>	1956	42	0
ALLSOP, PETER. The Legal Profession. 5th edn	<i>Sweet & Maxwell</i>	1960	10	6
AMOS, Sir MAURICE. British Criminal Justice				
	For the British Council <i>Longmans</i>	1957	2	6
ARCHER, PETER. The Queen's Courts	<i>Penguin Books</i>	1956	3	6
BEDFORD, SYBILLE. The Faces of Justice	<i>Collins</i>	1961	21	0
CAVENAGH, W. E. The Child and the Court	<i>Gollancz</i>	1959	21	0
DENNING, Lord. Freedom under the Law	<i>Stevens</i>	1949	11	0
DEVLIN, Sir PATRICK. The Criminal Prosecution in England				
	<i>Oxford University Press</i>	1960	15	0
——— Trial by Jury	<i>Stevens</i>	1956	15	0

			s.	d.
EDDY, J. P. The Justices' Handbook: A Guide to Law, Evidence and Procedure in Magistrates' Courts. 3rd edn	<i>Stevens</i>	1953	18	0
GIBB, D. M. A Preface to Scots Law. 3rd rev. edn	<i>William Green</i>	1961	12	6
GILES, F. T. Children and the Law	<i>Penguin Books</i>	1959	3	6
GLOAG, W. M. and HENDERSON, A. D. Introduction to the Laws of Scotland. 5th edn	<i>William Green</i>	1952	75	0
GOODHART, A. L., <i>Editor</i> . The Migration of the Common Law	<i>Stevens</i>	1960	5	0
HALSBURY, <i>Lord</i> . Laws of England, 3rd edn. <i>Editor-in-Chief</i> Viscount Simonds. 42 vols projected, 34 so far published	<i>Butterworth</i>	1954	4,137	0
			onwards	
JACKSON, R. M. The Machinery of Justice in England. 3rd edn	<i>Cambridge University Press</i>	1960	45	0
JAMES, PHILIP S. Introduction to English Law. 3rd edn	<i>Butterworth</i>	1955	17	6
RINGROSE, C. W. Where to Look for Your Law. 14th edn	<i>Sweet & Maxwell</i>	1962	12	6
RUBINSTEIN, RONALD. John Citizen and the Law. 4th edn	<i>Penguin Books</i>	1958	5	0
RUDD, G. R. The English Legal System	<i>Butterworth</i>	1962	37	6
SMITH, T. B. British Justice: The Scottish Contribution. Hamlyn Lectures 13th series	<i>Stevens</i>	1961	25	0
WADE, H. W. R. Administrative Law	<i>Oxford University Press</i>	1960	21	0
WALKER, D. M. The Scottish Legal System	<i>William Green</i>	1959	50	0
YARDLEY, D. C. M. Introduction to British Constitutional Law	<i>Butterworth</i>	1960	22	6
Annual Reports				
The Law Society on the Legal Aid and Advice Act				
	For 1960-61 <i>HMSO</i>	1962	5	6
The Law Society of Scotland on the Legal Aid Scheme				
	For 1960-61 <i>HMSO</i>	1961	3	6
Council on Tribunals	For 1961 <i>HMSO</i>	1962	2	9
Criminal Statistics, England and Wales				
	For 1961 Cmnd 1779 <i>HMSO</i>	1962	8	6
Criminal Statistics, Scotland	For 1961 Cmnd 1702 <i>HMSO</i>	1962	5	0
Report of the Committee on Civil Jury Trial in Scotland [Strachan Report]	Cmnd 851 <i>HMSO</i>	1959	2	6
Time spent Awaiting Trial: First Report of the Home Office Research Unit	<i>HMSO</i>	1960	3	0
The English Legal System COI Reference Pamphlet RF.P.5312	<i>HMSO</i>	1962	3	6
Treatment of Offenders				
ELKIN, WINIFRED A. The English Penal System	<i>Penguin Books</i>	1957	3	6
FOX, <i>Sir</i> LIONEL W. English Prison and Borstal Systems	<i>Routledge</i>	1952	32	0
FRY, MARGERY. Arms of the Law	<i>Gollancz</i>	1951	8	6
GRÜNHUT, M. Juvenile Offenders Before the Courts	<i>Oxford University Press</i>	1956	25	0
KING, JOAN F. S., <i>Editor</i> . The Probation Service	<i>Butterworth</i>	1958	25	0
KLARE, HUGH J. Anatomy of Prison	<i>Hutchinson</i>	1960	18	0
MCCLINTOCK, F. H., <i>with</i> WALKER, M. A. and SAVILL, N. C. Attendance Centres	<i>Macmillan</i>	1961	28	0
National Council of Social Service. Problems of the Ex-Prisoner: Report of the Thompson-Pakenham Committee	<i>NCSS</i>	1961	5	0

			s.	d.
ST. JOHN, JOHN. Probation: The Second Chance	<i>Vista</i>	1961	25	0
The After-Care and Supervision of Discharged Prisoners. Report of the Sub-Committee of the Advisory Council on the Treatment of Offenders	<i>HMSO</i>	1958	2	6
Annual Reports				
Commissioners of Prisons	For 1961 Cmnd 1798 <i>HMSO</i>	1962	11	0
Council of the Central After-Care Association	For 1961 <i>HMSO</i>	1962	2	0
Prisons in Scotland	For 1960 Cmnd 1383 <i>HMSO</i>	1961	3	6
Corporal Punishment. Report of Advisory Council on the Treatment of Offenders	Cmnd 1213 <i>HMSO</i>	1960	3	6
Penal Practice in a Changing Society	Cmnd 645 <i>HMSO</i>	1959	2	6
Prisons and Borstals, 4th edn	<i>HMSO</i>	1960	7	0
The Probation Service, Its Objects and Its Organisation. rev. edn	<i>HMSO</i>	1952	1	0
The Probation Service in Scotland	<i>HMSO</i>	1955	1	3
Report of the Committee on Discharged Prisoners' Aid Societies	Cmd 8879 <i>HMSO</i>	1953	3	0
Report of the Royal Commission on Capital Punishment 1949-53	Cmd 8932 <i>HMSO</i>	1953	12	6
Report of the Committee on Children and Young Persons [Ingleby Report]	Cmnd 1191 <i>HMSO</i>	1960	8	0
Report of the Departmental Committee on the Probation Service	Cmnd 1650 <i>HMSO</i>	1962	10	0
Work of the Children's Department of the Home Office	<i>HMSO</i>	1961	7	0
The Treatment of Offenders in Britain	COI Reference Pamphlet RF.P.4414 <i>HMSO</i>	1960	3	0

The Police Service

MORIARTY, C. C. H. Police Procedure and Administration. 6th edn	<i>Butterworth</i>	1955	10	6
SCOTT, Sir HAROLD, Scotland Yard	<i>André Deutsch</i>	1955	18	0
THOMAS, J. L. Police Administration. 2nd edn	<i>Police Review Publishing Co.</i>	1957	3	6
Annual Reports				
Commissioner of the Police of the Metropolis	For 1961 Cmnd 1765 <i>HMSO</i>	1962	6	6
H.M. Inspector of Constabulary, Scotland	For 1961 Cmnd 1736 <i>HMSO</i>	1962	1	6
H.M. Inspectors of Constabulary (Counties and Boroughs in England and Wales)	For 1961 <i>HMSO</i>	1962	2	6
Police. Choice of Careers. New Series No. 80	<i>HMSO</i>	1957	1	9
Royal Commission on the Police, 1962. Final Report	Cmnd 1728 <i>HMSO</i>	1962	12	6
Report of the Committee of the Police Council on Higher Police Training	<i>HMSO</i>	1962	1	3
The Police Service in Britain	Reference Pamphlet RF.P.4164 <i>COI</i>	1959		free*

4. DEFENCE

Brassey's Annual: The Armed Forces Year Book 1962, edited by Rear-Admiral H. G. Thursfield	<i>Clowes</i>	1962	84	0
Jane's All the World's Aircraft 1962-63, edited by John W. R. Taylor	<i>Sampson Low</i>	1962	105	0

		s.	d.
Jane's Fighting Ships 1962-63, edited by R. V. B. Blackman	<i>Sampson Low</i>	1962	105 0
KEMP, Lt.-Cdr. P. K. Fleet Air Arm	<i>Jenkins</i>	1954	16 0
——— H.M. Destroyers	<i>Jenkins</i>	1956	16 0
LEWIS, MICHAEL. The History of the British Navy	<i>Allen & Unwin</i>	1959	25 0
LIPSCOMB, Cdr. F. W. The British Submarine	<i>Black</i>	1954	12 6
SCHOFIELD, Vice-Admiral B. B. The Royal Navy Today	<i>Oxford University Press</i>	1960	18 0
SHEPPARD, E. W. A Short History of the British Army. 4th edn	<i>Constable</i>	1950	30 0
TAYLOR, JOHN W. R. C.F.S., Birthplace of Air Power: The Story of the R.A.F.'s Central Flying School 1912-58	<i>Putnam</i>	1958	21 0
THETFORD, OWEN. Aircraft of the Royal Air Force 1918-58	<i>Putnam</i>	1958	50 0
——— British Naval Aircraft 1912-58	<i>Putnam</i>	1958	50 0
Annual Estimates			
Air Estimates 1962-63	<i>HMSO</i>	1962	14 0
Memorandum by the Secretary of State for Air	Cmnd 1630 <i>HMSO</i>	1962	5 0
Army Estimates 1962-63	<i>HMSO</i>	1962	16 0
Memorandum of the Secretary of State for War	Cmnd 1631 <i>HMSO</i>	1962	5 0
Ministry of Defence Estimate 1962-63	<i>HMSO</i>	1962	1 3
Navy Estimates 1962-63	<i>HMSO</i>	1962	18 0
Statement of the First Lord of the Admiralty	Cmnd 1629 <i>HMSO</i>	1962	3 6
Annual Statements on Defence Policy			
Defence: Outline of Future Policy	Cmnd 124 <i>HMSO</i>	1957	1 3
Statement on Defence 1962: The Next Five Years	<i>HMSO</i>	1962	1 6
Central Organisation for Defence	Cmnd 476 <i>HMSO</i>	1958	6
Reorganisation of the Territorial Army	Cmnd 1216 <i>HMSO</i>	1960	9
Civil Defence			
Manual of Basic Training [<i>pamphlets</i>]	<i>HMSO</i>	1949	1 0
		to	to
		1959	2 0
Manuals of Civil Defence. Vol. I.			
Pamphlet No. 1. Nuclear Weapons	<i>HMSO</i>	1956	2 6
No. 2. Radioactive Fall-out	<i>HMSO</i>	1959	1 3

5. SOCIAL WELFARE

State and Voluntary Services

HALL, M. PENELOPE. The Social Services of Modern England. 5th rev. edn	<i>Routledge</i>	1960	28 0
HAYNES, A. H. The Practitioner's Handbook to the Social Services	<i>Wright & Sons</i>	1955	9 6
KUENSTLER, P. H. K., <i>Editor</i> . Social Group Work in Great Britain	<i>Faber</i>	1955	12 6
MORRIS, C., <i>Editor</i> . Social Case-Work in Great Britain, 2nd edn	<i>Faber</i>	1955	15 0
MORRIS, MARY. Voluntary Organisations and Social Progress	<i>Gollancz</i>	1955	18 0
NATIONAL CITIZENS' ADVICE BUREAUX COMMITTEE. Advising the Citizen	<i>National Council of Social Service</i>	1961	5 0

s. d.

NATIONAL COUNCIL OF SOCIAL SERVICE. Voluntary Social Services: Handbook of Information and Directory of Organisations, rev. edn NCSS	1960	10	6
—— Public Social Services: Handbook of Information. 11th edn NCSS	1961	15	0
POLITICAL AND ECONOMIC PLANNING. Family Needs and the Social Services <i>Allen & Unwin</i>	1961	30	0
TITMUSS, R. M. Essays on the Welfare State <i>Allen & Unwin</i>	1958	20	0
Annual Report Charity Commissioners for England and Wales For 1960 <i>HMSO</i>	1961	1	6
Official Histories of the Second World War: United Kingdom: Civil Series. Problems of Social Policy, by R. M. Titmuss <i>Longmans & HMSO</i>	1950	25	0
—— Studies in the Social Services, by S. M. Ferguson and H. Fitzgerald <i>Longmans & HMSO</i>	1954	22	6
Report of the Working Party on Social Workers in the Local Authority Health and Welfare Services <i>HMSO</i>	1959	15	0
The Story of the W.V.S. <i>HMSO</i>	1959	3	6
Social Services in Britain COI Reference Pamphlet RF.P.4891 <i>HMSO</i>	1962	5	6
Social Work in Britain Reference Pamphlet RF.P.4470 <i>COI</i>	1961		free*

Social Security

RATHBONE, ELEANOR. Family Allowances <i>Allen & Unwin</i>	1949	15	0
SHENFIELD, B. E. Social Policies for Old Age <i>Routledge</i>	1957	25	0
Annual Reports Ministry of Pensions and National Insurance For 1961 Cmnd 1764 <i>HMSO</i>	1962	10	0
National Assistance Board For 1961 Cmnd 1730 <i>HMSO</i>	1962	5	6
National Assistance Board for Northern Ireland For 1961 <i>Belfast, HMSO</i>	1962	2	6
War Pensioners For 1961 <i>HMSO</i>	1962	6	6
Everybody's Guide to National Insurance. rev. edn <i>HMSO</i>	1961		9
Guides to Official Sources, No. 5. Social Security Statistics <i>HMSO</i>	1961	8	0
National Insurance Bill 1959: Report of the Government Actuary on the Financial Provisions of the Bill Cmnd 629 <i>HMSO</i>	1959	1	0
Reports by the Government Actuary National Insurance Acts, 1946-59 <i>HMSO</i>	1960	3	6
National Insurance Acts (Northern Ireland), 1946-60 <i>HMSO</i>	1961	3	0
National Insurance (Industrial Injuries) Acts, 1946-59 <i>HMSO</i>	1960	1	9
National Insurance (Industrial Injuries) Acts (Northern Ireland) 1946-60 <i>HMSO</i>	1961	1	0
Social Insurance and Allied Services [Beveridge Report] Cmd 6404 <i>HMSO</i>	1942	12	6
Social Security in Britain Reference Pamphlet RF.P.5455 <i>COI</i>	1962		free*

Health and Welfare

ACTON SOCIETY TRUST. National Health Services in Great Britain: Hospitals and the State. Series of 6 Reports <i>AST</i>	1955 to 1959	4	0 each
CLEGG, HUGH. Medicine in Britain. 4th edn For the British Council <i>Longmans</i>	1951	2	0

		s.	d.
DAINTON, COURTNEY. <i>The Story of England's Hospitals</i>	<i>Museum Press</i>	1961	21 0
ECKSTEIN, HARRY. <i>The English Health Service</i>	<i>Harvard University Press/Oxford University Press</i>	1959	30 0
FRASER OF LONSDALE, Lord. <i>My Story of St. Dunstons</i>	<i>Harrap</i>	1961	25 0
GEMMILL, P. F. <i>Britain's Search for Health</i>	<i>University of Pennsylvania/Oxford University Press</i>	1961	32 0
GRUNDY, F. <i>The New Public Health</i>	<i>H. K. Lewis</i>	1960	21 0
NATIONAL COUNCIL OF SOCIAL SERVICE. <i>Help for the Handicapped,</i> by J. H. Nicholson	<i>NCSS</i>	1958	7 6
ROSS, Sir JAMES STIRLING. <i>The National Health Service in Great Britain</i>	<i>Oxford University Press</i>	1952	35 0
STOCKS, MARY. <i>A Hundred Years of District Nursing</i>	<i>Allen & Unwin</i>	1960	25 0
Annual Reports			
Department of Health for Scotland For 1961			
Part I. Health and Welfare Services	Cmnd 1703 <i>HMSO</i>	1962	5 6
Part II. Housing Planning and Environment	Cmnd 1652 <i>HMSO</i>	1962	4 0
General Board of Control for Scotland For 1961			
	Cmnd 1752 <i>HMSO</i>	1962	1 3
Health and Local Government Administration in Northern Ireland			
	For 1960 Cmd 429 <i>Belfast, HMSO</i>	1961	5 6
Ministry of Health			
Part I. Health and Welfare Services			
	For 1961 Cmnd 1754 <i>HMSO</i>	1962	15 0
Part II. On the State of the Public Health			
	For 1960 Cmnd 1550 <i>HMSO</i>	1961	13 0
A Hospital Plan for England and Wales	Cmnd 1604 <i>HMSO</i>	1962	18 6
Hospital Plan for Scotland	Cmnd 1602 <i>HMSO</i>	1962	2 6
National Health Service Summarised Accounts <i>Annual</i>			
	For 1960-61 <i>HMSO</i>	1962	3 6
National Health Service (Scotland) Summarised Accounts <i>Annual</i>			
	For 1960-61 <i>HMSO</i>	1962	3 0
Report of Committee on Cost of Prescribing (Final)	<i>HMSO</i>	1959	6 0
Report of Committee of Enquiry into the Cost of the National Health Service [Guillebaud Report]	Cmd 9663 <i>HMSO</i>	1956	11 0
Report of Committee on General Practice within the National Health Service [Cohen Report]	<i>HMSO</i>	1954	2 6
Report of Committee on Social Workers in the Mental Health Services	Cmd 8260 <i>HMSO</i>	1951	1 6
Report of Committee on Rehabilitation, Training and Resettlement of Disabled Persons	Cmd 9883 <i>HMSO</i>	1956	5 6
Report of the Maternity Services Committee	<i>HMSO</i>	1959	6 6
Report of the Royal Commission on Doctors' and Dentists' Remuneration [Pilkington Report]	Cmnd 939 <i>HMSO</i>	1960	15 0
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Report of the Royal Commission on the Law Relating to Mental Illness and Mental Deficiency, 1954-57	Cmnd 169 <i>HMSO</i>	1957	10 6
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Education in 1961	Cmd 1737	HMSO	1962	8 6
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Scottish Education Department				
Education in Scotland in 1961	Cmd 1673	HMSO	1962	8 6
Statistics of Education 1961				
Part I		HMSO	1962	15 0
Part II		HMSO	1962	15 0
Better Opportunities in Technical Education	Cmd 1254	HMSO	1961	1 3
Education in Scotland: The Next Step	Cmd 603	HMSO	1958	6
15 to 18: Report of the Central Advisory Council for Education				
[Crowther Report]: Vol. I		HMSO	1959	12 6
Vol. II (Surveys)		HMSO	1960	8 6
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Advisory Committee (McMeeking Report)		HMSO	1959	2 6
The Future Pattern of the Education and Training of Teachers				
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Public Education in Scotland. rev. edn		HMSO	1961	4 0
Report of the Committee on Grants to Students				
	Cmd 1051	HMSO	1960	6 6
Report of the Committee on Organisation and Finance of Adult				
Education		HMSO	1954	2 6
Scope and Content of the Three Year Course of Teacher Training				
(Sixth Report of the National Advisory Council on the Training				
and Supply of Teachers)		HMSO	1957	9
Secondary Education for All: A New Drive	Cmd 604	HMSO	1959	9
Technical Education	Cmd 9703	HMSO	1956	1 6
Technical Education in Scotland: The Pattern of the Future				
	Cmd 1245	HMSO	1961	1 0
University Grants Committee				
Annual Return from Universities and University Colleges				
For 1959-60	Cmd 1489	HMSO	1961	5 6
University Development 1952-57	Cmd 534	HMSO	1958	5 6
University Development 1957-61 (Interim Report)				
	Cmd 1691	HMSO	1962	1 6
Education in Britain				
	COI Reference Pamphlet RF.P.4751	HMSO	1960	4 0
Technological Education in Britain				
	COI Reference Pamphlet RF.P.4265	HMSO	1959	3 0
Teacher Training in Britain	Reference Paper R.5279	COI	1962	free*
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Youth Services				
BREW, J. MACALISTER. Youth and Youth Groups		Faber	1957	18 0
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Related Movements in Great Britain		University of London Press	1953	20 0
JEPHCOTT, PEARL. Some Young People		Allen & Unwin	1954	12 6
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Citizens of To-morrow: A Study of Influences Affecting the Upbringing of Young People				
For King George's Jubilee Trust <i>Odhams</i>	1955		3	0
Progress Report <i>The Trust</i>	1958		free	
Duke of Edinburgh's Award Scheme: Report for 1960-61				
<i>Duke of Edinburgh's Award Office</i>	1962		5	0
Development of the Youth Service <i>Cmd 424 Belfast, HMSO</i>	1961		1	3
Youth Service in England and Wales [Albemarle Report]				
<i>Cmnd 929 HMSO</i>	1960		6	0
Youth Services in Britain <i>Reference Paper R.4840 COI</i>	1961		free*	

6. PLANNING AND HOUSING

Annual Reports

Ministry of Housing and Local Government				
For 1961 <i>Cmnd 1725 HMSO</i>	1962		4	6
Department of Health for Scotland. For 1961				
Part II. Housing, Planning and Environment <i>Cmnd 1652 HMSO</i>	1962		4	0
Ministry of Health and Local Government (Northern Ireland)				
For 1960 <i>Cmd 429 Belfast, HMSO</i>	1961		5	6

Town and Country Planning

ABERCROMBIE, Sir PATRICK. Town and Country Planning. 3rd edn				
<i>Oxford University Press</i>	1960		7	6
ABRAHAMS, HAROLD M., <i>Editor</i> . Britain's National Parks				
<i>Country Life</i>	1960		25	0
ASHWORTH, WILLIAM. The Genesis of Modern British Town Planning				
<i>Routledge</i>	1954		21	0
CROWE, SYLVIA. Tomorrow's Landscape <i>Architectural Press</i>	1956		21	0
GIBBERD, FREDERICK. Town Design. 3rd edn <i>Architectural Press</i>	1959		73	6
HEAP, DESMOND. An Outline of Planning Law. 3rd edn				
<i>Sweet & Maxwell</i>	1960		25	0
KEEBLE, LEWIS. Principles and Practice of Town and Country Planning. 2nd edn				
<i>Estates Gazette</i>	1959		50	0
LICHFIELD, N. Economics of Planned Development <i>Estates Gazette</i>	1957		47	6
LONDON COUNTY COUNCIL. London Plan, First Review <i>LCC</i>	1960		50	0
The Planning of a New Town <i>LCC</i>	1961		50	0
NICHOLSON, E. M. Britain's Nature Reserves <i>Country Life</i>	1958		30	0
TOWN AND COUNTRY PLANNING ASSOCIATION. Town and Country Planning <i>Monthly</i>				
<i>T and CPA</i>			2	0
Annual Reports				
Development Corporations of the New Towns				
England and Wales <i>For 1960-61 HMSO</i>	1961		27	6
Scotland <i>For 1960-61 HMSO</i>	1961		8	0
National Parks Commission <i>For 1960-61 HMSO</i>	1962		7	0
Nature Conservancy <i>For 1960-61 HMSO</i>	1961		8	6
First Ten Years: Report of the Nature Conservancy <i>HMSO</i>	1959		1	6
National Park Guides				
Dartmoor <i>HMSO</i>	1957		5	6
Peak District <i>HMSO</i>	1960		5	0
Snowdonia <i>HMSO</i>	1958		5	0

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New Towns in Britain	COI	1962		free
Town and Country Planning in Britain				
	COI Reference Pamphlet RF.P.5355	HMSO	1962	3 0
The New Towns of Britain				
	COI Reference Pamphlet RF.P.4506	HMSO	1961	2 6
Housing				
ASHWORTH, HERBERT. Housing in Great Britain	<i>Skinner</i>	1957	7	6
Councils and their Houses: Management of Estates	<i>HMSO</i>	1959	2	6
Flats and Houses 1958: Design and Economy	<i>HMSO</i>	1958	10	0
Homes for Today and Tomorrow	<i>HMSO</i>	1961	4	0
Houses: The Next Step	Cmd 8996 <i>HMSO</i>	1953		9
Houses in England and Wales	Cmdnd 1290 <i>HMSO</i>	1961	1	0
Housing Manual 1949	<i>HMSO</i>	1949	3	6
——— Supplement. Housing for Special Purposes	<i>HMSO</i>	1951	2	0
——— Supplement. Houses 1952	<i>HMSO</i>	1952	1	0
——— Supplement. Houses 1953	<i>HMSO</i>	1953	3	0
Housing Policy, Scotland	Cmd 8997 <i>HMSO</i>	1953		6
Housing Return, England and Wales	<i>Quarterly Cmnd Paper HMSO</i>			9
Housing Return, Scotland	<i>Quarterly Cmnd Paper HMSO</i>		1	3
The Rent Act and You				
Questions and Answers for Landlord and Tenant [England and Wales]	<i>HMSO</i>	1957		6
A Simple Guide for Scotland	<i>HMSO</i>	1957		6
Housing in Britain	COI Reference Pamphlet RF.P.4500	<i>HMSO</i>	1961	3 6

7. THE CHURCHES

BAPTIST UNION. Baptist Handbook: edited and published under the direction of the Council of the Baptist Union of Great Britain and Ireland	For 1961 <i>Carey Kingsgate Press</i>	1961	15	0
Catholic Directory, 1962	<i>Burns, Oates & Washbourne</i>	1962	21	0
CHURCH ASSEMBLY. Report by the Board of Social Responsibility on the Task of the Church in relation to Industry	<i>Church Information Office</i>	1959	1	6
CHURCH OF ENGLAND. Official Yearbook, 1962. For the Church Assembly	<i>Church Information Office</i>	1962	30	0
CHURCH OF IRELAND. The Irish Church Directory and Year Book for 1962	<i>Church of Ireland Printing & Publishing Company</i>	1962	10	0
CHURCH OF SCOTLAND. Year Book				
For 1962 <i>Church of Scotland Committee of Publications</i>		1962	10	0
CHURCH IN WALES. Official Handbook 1959	<i>Representative Body of the Church in Wales, Cardiff</i>	1959	15	0
CONGREGATIONAL UNION OF ENGLAND AND WALES. Congregational Year Book 1962	<i>The Union</i>	1962	42	0
EPISCOPAL CHURCH IN SCOTLAND. The Scottish Episcopal Church Year Book and Directory				
For 1962-63 <i>Representative Church Council of the Episcopal Church in Scotland</i>		1962	8	6
The Lambeth Conference, 1958 ¹	<i>Society for Promoting Christian Knowledge</i>	1958	7	6
MAYFIELD, GUY. The Church of England	<i>Oxford University Press</i>	1958	18	0

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METHODIST CHURCH. Minutes of the Annual Conference of the Methodist Church, 1962	<i>Methodist Publishing House</i>	1962	15	0
PRESBYTERIAN CHURCH OF ENGLAND. Official Handbook For 1962-63	<i>Presbyterian Church of England</i>	1962	7	6
PRESBYTERIAN CHURCH OF WALES. Year Book For 1962	<i>Presbyterian Church of Wales</i>	1962	6	0
SALVATION ARMY. Year Book For 1962	<i>Salvationist Publishing & Supplies</i>	1962	5	0
UNITARIAN AND FREE CHRISTIAN CHURCHES. Year Book of the GENERAL ASSEMBLY For 1962	<i>Lindsey Press</i>	1962	6	0
UNITED FREE CHURCH OF SCOTLAND. Handbook For 1962	<i>United Free Church of Scotland</i>	1962	2	6

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The Sciences

ANDRADE, E. N. da C. A Brief History of The Royal Society	<i>Royal Society</i>	1960	10	6
BRITISH COUNCIL. Scientific and Learned Societies of Great Britain: A Handbook compiled from Official Sources. 60th edn	<i>Allen & Unwin</i>	1962	45	0
CARDWELL, D. S. L. The Organisation of Science in England	<i>Heinemann</i>	1957	18	0
CARTER, C. F. and WILLIAMS, B. R. Science in Industry. Policy for Progress	<i>Oxford University Press</i>	1959	21	0
FEDERATION OF BRITISH INDUSTRIES. Industrial Research in Manufacturing Industry	<i>FBI</i>	1961	40	0
HARTLEY, Sir HAROLD. The Royal Society: Its Origins and Founders	<i>Royal Society</i>	1960	35	0
HUDSON, DEREK and LUCKHURST, K. W. The Royal Society of Arts, 1754-1954	<i>John Murray</i>	1954	30	0
JARAMILLO-ARANGO, Dr. JAIME. The British Contribution to Medicine	<i>Livingstone</i>	1953	25	0
JAY, K. E. B. Nuclear Power Today and Tomorrow	<i>Methuen</i>	1961	25	0
JEFFERSON, S., <i>Editor</i> . Handbook of the Atomic Energy Industry	<i>Newnes</i>	1958	35	0
JEWKES, J., SAWERS, D. and STILLERMAN, R. The Sources of Invention	<i>Macmillan</i>	1958	31	6
PAYNE, G. L. Britain's Scientific and Technical Manpower	<i>Oxford University Press</i>	1960	45	0
ROYAL SOCIETY OF LONDON. The Year Book of the Royal Society of London, 1961	<i>Royal Society</i>	1961	21	0
TURRILL, W. B. The Royal Botanic Gardens, Kew, Past and Present	<i>Jenkins</i>	1959	25	0
Research at Your Service	<i>DSIR</i>	1960	free	
Annual Reports				
Advisory Council on Scientific Policy For 1960-61	Cmnd 1592 <i>HMSO</i>	1962	1	6
Agricultural Research Council For 1960-61	Cmnd 1661 <i>HMSO</i>	1962	5	6
Atomic Energy Authority Eighth Report For 1961-62	<i>HMSO</i>	1962	6	6
Medical Research Council For 1960-61	Cmnd 1783 <i>HMSO</i>	1962	21	0
National Research Development Corporation For 1960-61	<i>HMSO</i>	1961	2	3

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Annual Reports— <i>contd.</i>			
Research Council of the Department of Scientific and Industrial Research	For 1961 Cmnd 1734 <i>HMSO</i>	1962	4 0
Guide to Information on Nuclear Energy in Britain	<i>COI/HMSO</i>	1960	5 0
Hazards to Man of Nuclear and Allied Radiation. 2nd Report of the Medical Research Council	Cmnd 1225 <i>HMSO</i>	1960	7 0
Industrial Research and Development Expenditure, 1958	<i>HMSO</i>	1960	1 3
Register of Research in the Human Sciences 1960-61	<i>HMSO</i>	1962	10 0
Report of Committee on Management and Control of Research and Development	<i>HMSO</i>	1961	7 0
Research for Industry, 1961	<i>HMSO</i>	1962	10 0
Science Museum: The First Hundred Years	<i>HMSO</i>	1957	15 0
Scientific and Engineering Manpower in Great Britain	Cmnd 902 <i>HMSO</i>	1959	3 0
Scientific Research in British Universities and Colleges, 1961-62	<i>HMSO</i>	1962	32 6
Nuclear Energy in Britain			
	<i>COI Reference Pamphlet RF.P.5151 HMSO</i>	1962	7 0
Britain and Space Research	Reference Paper R.5337 <i>COI</i>	1962	free*
Some British Records and Achievements in Science, Industry and Technology	Reference Booklet RF.P.5446 <i>COI</i>	1962	free*
Industrial Research in Britain	Reference Paper R.4631 <i>COI</i>	1961	free*
The Arts			
ARTS COUNCIL OF GREAT BRITAIN. The First Ten Years. Eleventh Annual Report 1955-56	<i>Arts Council</i>	1956	2 6
—— Partners in Patronage. Sixteenth Annual Report 1960-61	<i>Arts Council</i>	1961	2 6
BRITISH COUNCIL. Annual Report 1960-61	<i>British Council</i>	1961	2 6
CALOUSTE GULBENKIAN FOUNDATION. Help for the Arts: Report to the Foundation	<i>The Foundation</i>	1959	3 0
<i>Visual Arts</i>			
Directory of Museums and Art Galleries in the British Isles	<i>Museums Association</i>	1948	21 0
GARDNER, A. H. Outline of English Architecture. 3rd edn	<i>Batsford</i>	1949	15 0
HENDY, Sir PHILIP. The National Gallery, London	<i>Thames & Hudson</i>	1955	126 0
Museums Calendar Annual For 1962	<i>Museums Association</i>	1962	10 0
ROTHENSTEIN, Sir JOHN. An Introduction to English Painting	<i>Cassell</i>	1952	21 0
—— British Art Since 1900	<i>Phaidon Press</i>	1962	60 0
Who's Who in Art. 11th edn	<i>Art Trade Press, Eastbourne</i>	1962	73 6
Annual Reports			
Ancient Monuments Boards for England, Scotland and Wales			
	For 1961 <i>HMSO</i>	1962	2 0
Historic Buildings Council for England	For 1961 <i>HMSO</i>	1962	1 3
Historic Buildings Council for Scotland	For 1961 <i>HMSO</i>	1962	1 3
Historic Buildings Council for Wales	For 1961 <i>HMSO</i>	1962	8
Royal Fine Art Commission	For 1959-60 Cmnd 1336 <i>HMSO</i>	1961	1 0
Tate Gallery	For 1960-61 <i>HMSO</i>	1961	5 6
Report of the Royal Fine Art Commission for Scotland	Cmnd 1756 <i>HMSO</i>	1962	1 6
Standing Commission on Museums and Galleries			
	Report for 1954-58 <i>HMSO</i>	1959	4 0

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British National Bibliography. Annual for 1961 <i>The Council of the British National Bibliography</i>	1962	190	0
Library Association Year Book 1962 <i>Library Association</i>	1962	21	0
SAMPSON, GEORGE. The Concise Cambridge History of English Literature, 2nd edn <i>Cambridge University Press</i>	1962	25	0
SCOTT-JAMES, R. A. Fifty Years of English Literature, 1900-1950, new edn with Postscript, 1951-55 <i>Longmans</i>	1956	21	0
The Structure of the Public Library Service in England and Wales Cmnd 660 <i>HMSO</i>	1959	3	6

Drama

The Stage Year Book, 1961 <i>Annual</i> <i>The Stage</i>	1961	14	6
Who's Who in the Theatre, edited by John Parker, 13th rev. edn <i>Pitman</i>	1961	105	0

Films

MANVELL, ROGER. The Living Screen <i>Harrap</i>	1961	15	0
POLITICAL AND ECONOMIC PLANNING. The British Film Industry, 1958 <i>PEP</i>	1958	5	0
ROTHA, PAUL. The Film Till Now <i>Vision Press</i>	1960	105	0
——— Film <i>Faber</i>	1958	30	0
SPOTTISWOODE, RAYMOND. Grammar of the Film, 2nd edn <i>Faber</i>	1955	18	0
STORK, LEOPOLD. Industrial Business Films <i>Phoenix House</i>	1962	35	0
Annual Reports			
British Film Fund Agency For 1960-61 <i>HMSO</i>	1962		8
British Film Institute. Twenty-Ninth Annual Report <i>BFI</i>	1962		free
Cinematograph Films Council For 1961-62 <i>HMSO</i>	1962		8
National Film Finance Corporation (and Statement of Accounts) For 1961-62 Cmnd 1793 <i>HMSO</i>	1962	1	6

Music, Opera and Ballet

Ballet Annual 1963, edited by Arnold L. Haskell and M. Clarke <i>Black</i>	1962	30	0
British Federation of Music Festivals Year Book <i>British Federation of Music Festivals</i>	1962	6	6
CLARKE, MARY. The Sadler's Wells Ballet: A History and an Appreciation <i>Black</i>	1955	21	0
Music Book <i>Hinrichsen</i>	1956	25	0
WALKER, ERNEST. A History of Music in England. 3rd edn <i>Oxford University Press</i>	1952	50	0

9. THE NATIONAL ECONOMY

CLAPHAM, Sir JOHN. A Concise Economic History of Britain: From Earliest Times to 1750 <i>Cambridge University Press</i>	1949	30	0
——— An Economic History of Modern Britain. 3 vols <i>Cambridge University Press</i>	1938	172	6
COURT, W. H. B. A Concise Economic History of Britain from 1750 to Recent Times <i>Cambridge University Press</i>	1954	32	6
DEVONS, E. An Introduction to British Economic Statistics <i>Cambridge University Press</i>	1956	22	6

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JONES, G. P. and POOL, A. G. A Hundred Years of Economic Development in Great Britain 1840-1940. 2nd edn	<i>Duckworth</i>	1948	21	0
LEWIS, W. ARTHUR. Economic Survey 1919-1939	<i>Allen & Unwin</i>	1953	18	0
MORGAN, E. V. The Structure of Property Ownership in Great Britain	<i>Oxford University Press</i>	1960	32	6
POLITICAL AND ECONOMIC PLANNING. Growth in the British Economy	<i>Allen & Unwin</i>	1960	30	0
SCOTTISH COUNCIL (DEVELOPMENT AND INDUSTRY). Inquiry into the Scottish Economy 1960-61 [Toothill Report]	<i>The Council</i>	1962	25	0
STAMP, L. DUDLEY and BEAVER, S. H. The British Isles: a Geographic and Economic Survey	<i>Longmans</i>	1954	46	6
THOMAS, BRINLEY. The Welsh Economy	<i>University of Wales</i>	1962	30	0
YOUNGSON, A. J. The British Economy 1920-1957	<i>Allen & Unwin</i>	1960	28	0
Economic Review <i>Bi-Monthly from January 1959</i>	<i>National Institute of Economic and Social Research</i>		8	0
Official Histories of the Second World War: United Kingdom: Civil Series. British War Economy, by W. K. Hancock and M. M. Gowing	<i>Longmans & HMSO</i>	1949	30	0
Annual Abstract of Statistics. No. 98. 1961	<i>HMSO</i>	1961	25	0
Economic Survey <i>Annual from 1947</i> For 1962 Cmnd 1678	<i>HMSO</i>	1962	3	6
Economic Survey of Northern Ireland (Report prepared by K. S. Isles and N. Cuthbert)	<i>Belfast, HMSO</i>	1957	35	0
Incomes Policy: The Next Step	Cmnd 1626 <i>HMSO</i>	1962		8
Family Expenditure Survey, Report for 1957-59	<i>HMSO</i>	1961	12	6
National Income and Expenditure of the United Kingdom 1938-46	Cmnd 7099 <i>HMSO</i>	1947	1	0
1962 (prepared by the Central Statistical Office)	<i>HMSO</i>	1962	6	0
Digest of Scottish Statistics <i>Twice Yearly from April 1953</i>	<i>HMSO</i>		5	0
Digest of Statistics: Northern Ireland <i>Twice Yearly from March 1954</i>	<i>Belfast, HMSO</i>		7	6
Digest of Welsh Statistics <i>Annual from 1954</i>	<i>HMSO</i>		7	0
Monthly Digest of Statistics	<i>HMSO</i>		6	0
Statistics on Incomes, Prices, Employment and Production. <i>Quarterly</i>	<i>HMSO</i>		12	6

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Organisation and Production

ALLEN, G. C. British Industries and their Organisation. 4th edn	<i>Longmans</i>	1959	25	0
——— The Structure of Industry in Britain	<i>Longmans</i>	1961	12	6
BRITISH STANDARDS INSTITUTION. Year Book	<i>BSI</i>	1962	15	0
BURN, DUNCAN, <i>Editor</i> . The Structure of British Industry: A Symposium. Vol. I	<i>Cambridge University Press</i>	1958	45	0
Vol. II	<i>Cambridge University Press</i>	1958	50	0
DUNNING, J. H. and THOMAS, C. J. British Industry	<i>Hutchinson</i>	1961	30	0
GOODMAN, L. LONDON. Man and Automation	<i>Penguin Books</i>	1957	3	6
HANSON, H. A. Parliament and Public Ownership	<i>Cassell</i>	1961	30	0
OAKLEY, C. A., <i>Editor</i> . Scottish Industry: An Account of what Scotland makes and where she makes it	<i>Scottish Council</i>	1953	25	0
POLITICAL AND ECONOMIC PLANNING. Industrial Trade Associations: Activities and Organisations	<i>Allen & Unwin</i>	1957	30	0

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ROBSON, W. A. Nationalised Industry and Public Ownership	<i>Allen & Unwin</i>	1960	50	0
WEINER, HERBERT E. British Labour and Public Ownership	<i>Stevens</i>	1960	45	0
Distribution of Industry	Cmd 7540 <i>HMSO</i>	1948	1	9
The Financial and Economic Obligations of the Nationalised Industries	Cmnd 1337 <i>HMSO</i>	1961	1	0
Registrar of Restrictive Trading Agreements. Report for the period 1st January 1960 to 30th June 1961	Cmnd 1603 <i>HMSO</i>	1962	2	6
Report of the Company Law Committee [Jenkins Report]	Cmnd 1749 <i>HMSO</i>	1962	12	6
Guides to Official Sources, No. 6. Census of Production Reports	<i>HMSO</i>	1961	5	0
Review of Highland Policy	Cmnd 785 <i>HMSO</i>	1959		9
Industry and Employment in Scotland and Scottish Roads Report	For 1961-62 Cmnd 1727 <i>HMSO</i>	1962	6	6
Annual Supplement to Scottish Roads Report	Cmnd 1618 <i>HMSO</i>	1962		8
Wales and Monmouthshire: Report on Developments and Government Action 1961	Cmnd 1643 <i>HMSO</i>	1962	7	0
Nationalised Industries in Britain	Reference Paper R.4298 <i>COI</i>	1960		free*

Fuel and Power

Ministry of Power Statistical Digest <i>Annual</i>	For 1961 <i>HMSO</i>	1962	25	0
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Coal

NATIONAL COAL BOARD. British Coal, The Rebirth of an Industry	<i>NCB</i>	1957		free
— Fifty Questions and Answers on British Coal	<i>NCB</i>	1961		free
— Report of the Advisory Committee on Organisation	<i>NCB</i>	1955	2	6
— Revised Plan for Coal	<i>NCB</i>	1959	3	6
NEF, J. U. Rise of the British Coal Industry. 2 vols	<i>Routledge</i>	1932	56	0
TOWNSHEND-ROSE, H. The British Coal Industry	<i>Allen & Unwin</i>	1951	12	6
WALKERDINE, R. N. and CORBIN, E. G., <i>Editors</i> . Guide to the Coalfields	<i>Colliery Guardian</i>	1960	20	0
Annual Report and Accounts				
National Coal Board				
Vol. I. Report	For 1961 <i>HMSO</i>	1962	3	6
Vol. II. Accounts and Statistical Tables	For 1961 <i>HMSO</i>	1962	12	0
Coal Mining: Report of the Technical Advisory Committee [Reid Report]	Cmd 6610 <i>HMSO</i>	1945	3	6
Safety in Mines Research 1960	<i>HMSO</i>	1961	5	0

Petroleum

LONGHURST, HENRY C. Adventure in Oil	<i>Sidgwick & Jackson</i>	1959	21	0
UNITED KINGDOM PETROLEUM INDUSTRY ADVISORY COMMITTEE.				
UK Petroleum Industry Statistics Relating to Consumption and Refinery Production <i>Annual</i>	<i>Petroleum Information Bureau</i>	1962		free
British Industries: Oil	<i>Cassell</i>	1953	8	6
The Oilfields of Britain	<i>The British Petroleum Company</i>	1956		free
Our Industry	<i>The British Petroleum Company</i>	1959		free

Electricity and Gas Supply

ELECTRICITY COUNCIL. Power for the Future	<i>Electricity Council</i>	1959	free
GAS COUNCIL. The Rise of the Gas Industry in Britain	<i>Gas Council</i>	1949	15 0
——— Fuel for the Nation	<i>Gas Council</i>	1960	free
SELF, Sir HENRY and WATSON, ELIZABETH M. Electricity Supply in Great Britain	<i>Allen & Unwin</i>	1952	20 0
SLEEMAN, J. F. British Public Utilities	<i>Pitman</i>	1953	20 0
Annual Reports and Accounts			
Central Electricity Generating Board	For 1961-62 <i>HMSO</i>	1962	11 6
Electricity Council	For 1961-62 <i>HMSO</i>	1962	11 6
Gas Council	For 1960-61 <i>HMSO</i>	1961	9 6
North of Scotland Hydro-Electric Board	For 1961 <i>HMSO</i>	1962	5 6
South of Scotland Electricity Board	For 1961 <i>HMSO</i>	1962	5 0
The Nuclear Power Programme	Cmnd 1083 <i>HMSO</i>	1960	4
Report from the Select Committee on Nationalised Industries: the Gas Industry			
Vol. I. Report and Proceedings	<i>HMSO</i>	1961	8 0
Report of the Committee of Inquiry into the Electricity Supply Industry [Herbert Committee]	Cmd 9672 <i>HMSO</i>	1956	6 6
Report of the Committee on Hydro-Electric Development in Scotland	Cmd 6406 <i>HMSO</i>	1942	9
Town Gas: Its Manufacture and Distribution	<i>HMSO</i>	1958	5 6
Nuclear Energy in Britain			
COI Reference Pamphlet RF.P.5151	<i>HMSO</i>	1962	7 0

Water Supply

HOBBS, A. T., <i>Editor</i> . The Manual of British Water Supply Practice	<i>Institute of Water Engineers/Heffer</i>	1954	55 0
METROPOLITAN WATER BOARD. London's Water Supply 1903-53: A Review of the Work of the Metropolitan Water Board			
<i>Staples Press</i>	1953	15 0	
VEAL, T. H. P. The Supply of Water. 2nd edn	<i>Chapman & Hall</i>	1950	30 0
Annual Reports			
British Rainfall	For 1957 <i>HMSO</i>	1960	32 6
Department of Health for Scotland			
For 1961 Part II	Cmnd 1652 <i>HMSO</i>	1962	4 0
Ministry of Housing and Local Government			
For 1961	Cmnd 1725 <i>HMSO</i>	1962	4 6
Surface Water Year Book of Great Britain 1959-60	<i>HMSO</i>	1961	22 6
Water Pollution Research, 1961	<i>HMSO</i>	1962	8 6
Central Advisory Water Committee. Report of Sub-Committee on Information on Water Resources	<i>HMSO</i>	1959	1 3
——— Sub-Committee on Growing Demand for Water			
First Report	<i>HMSO</i>	1959	1 3
Second Report	<i>HMSO</i>	1960	6
Final Report	<i>HMSO</i>	1962	3 6
Water Conservation, England and Wales	Cmnd 1693 <i>HMSO</i>	1962	1 3
Report on the Water Resources of Wales	Cmnd 1331 <i>HMSO</i>	1961	5 0

Construction

FEDERATION OF CIVIL ENGINEERING CONTRACTORS. The British Civil Engineering Contracting Industry			
<i>Federation of Civil Engineering Contractors</i>		1956	63 0
NORRIE, C. M. Bridging the Years	<i>Arnold</i>	1956	21 0

Annual Reports

			s.	d.
Building Research, 1961	<i>HMSO</i>	1962	8	6
Hydraulics Research, 1961	<i>HMSO</i>	1962	7	0
National Building Studies series (Bulletins, Special Reports and Research Papers)	<i>HMSO</i>	1948 to 1961		9 to 35 0

Manufacturing Industries

BRITISH IRON AND STEEL FEDERATION. Annual Report 1961	<i>BISF</i>	1962	free	
BURN, D. L. Economic History of Steelmaking 1867-1939	<i>Cambridge University Press</i>	1940	50	0
——— The Steel Industry 1939-1959	<i>Cambridge University Press</i>	1961	80	0
CORNWELL, E. L. Commercial Road Vehicles	<i>Batsford</i>	1960	30	0
DONNITHORNE, AUDREY G. British Rubber Manufacturing	<i>Duckworth</i>	1958	25	0
DUNNING, J. H. American Investment in British Manufacturing Industry	<i>Allen & Unwin</i>	1958	35	0
GLASS MANUFACTURERS' FEDERATION. This is the British Glass Industry	<i>GMF</i>	1955	2	6
HAGUE, DOUGLAS C. The Economics of Man-Made Fibres	<i>Duckworth</i>	1957	30	0
MAXCY, G. and SILBERSTON, A. The Motor Industry	<i>Allen & Unwin</i>	1959	25	0
PARKINSON, J. R. The Economics of Shipbuilding	<i>Cambridge University Press</i>	1960	40	0
ROBSON, R. The Cotton Industry in Britain	<i>Macmillan</i>	1957	60	0
——— The Man-Made Fibres Industry	<i>Macmillan</i>	1958	21	0
SOCIETY OF MOTOR MANUFACTURERS AND TRADERS. The Motor Industry of Great Britain 1961	<i>SMMT</i>	1961	55	0
STURMEY, S. C. The Economic Development of Radio	<i>Duckworth</i>	1958	30	0
Development in the Iron and Steel Industry Special Report, 1961	<i>HMSO</i>	1961	7	0
Reorganisation of the Cotton Industry	Cmdnd 744 <i>HMSO</i>	1959		9
Report of the Iron and Steel Board	For 1961 <i>HMSO</i>	1962	5	6
United Kingdom Agricultural Engineering Industry	Reference Paper R.4126 <i>COI</i>	1959	free*	
The British Motor Vehicle Industry	Reference Paper R.5374 <i>COI</i>	1962	free*	
United Kingdom Pharmaceutical Industry	Reference Paper R.4957 <i>COI</i>	1961	free*	
United Kingdom Shipbuilding Industry	Reference Paper R.4801 <i>COI</i>	1960	free*	
United Kingdom Steel Industry	Reference Paper R.4930 <i>COI</i>	1961	free*	

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ALLEN, C. R. Agricultural Marketing Policies	<i>Blackwell</i>	1959	42	0
CROSSLEY, E. L. The United Kingdom Dairy Industry	<i>United Kingdom Dairy Association</i>	1959	21	0
DIGBY, M. and GORST, S. Agricultural Co-operation in the United Kingdom. 2nd edn	<i>Blackwell</i>	1957	15	0
DIGBY, M. <i>Editor</i> . Year Book of Agricultural Co-operation	<i>Blackwell</i>	1961	35	0
ERNLE, <i>Lord</i> . English Farming Past and Present. New edn by G. F. Russell and D. R. McGregor	<i>Frank Cass/Heinemann</i>	1961	50	0

			s.	d.
HIRSCH, G. P. and HUNT, K. E. <i>British Agriculture: Structure and Organisation</i>	<i>Evans</i>	1958	3	6
MCGRONE, GAVIN. <i>The Economics of Subsidised Agriculture</i>	<i>Allen & Unwin</i>	1961	25	0
SELF, P. and STORING, H. J. <i>The State and the Farmer</i>	<i>Allen & Unwin</i>	1962	30	0
SYMON, J. A. <i>Scottish Farming Past and Present</i>	<i>Oliver & Boyd</i>	1959	42	0
WATSON, Sir JAMES SCOTT and MORE, J. A. <i>Agriculture: The Science and Practice of British Farming</i> . 11th edn	<i>Oliver & Boyd</i>	1962	30	0
WILLIAMS, H. T., <i>Editor</i> . <i>Principles for British Agricultural Policy</i>	<i>Oxford University Press</i>	1960	18	0
Official Histories of the Second World War: United Kingdom: Civil Series. <i>Agriculture</i> , by Keith A. H. Murray	<i>Longmans & HMSO</i>	1956	30	0
Agricultural Improvement Council. <i>Fourth Report 1956-59</i>	<i>HMSO</i>	1959	2	0
Agricultural Research Service	<i>HMSO</i>	1953	2	6
Agricultural Statistics, United Kingdom 1959-60	<i>HMSO</i>	1961	4	0
Annual Reports				
Agricultural Marketing Schemes	For 1960-61 <i>HMSO</i>	1962	6	6
Animal Health Services in Great Britain	For 1960 <i>HMSO</i>	1962	6	6
Crofters Commission: Report	For 1961 <i>HMSO</i>	1962	2	3
Department of Agriculture for Scotland				
Agriculture in Scotland 1961	Cmnd 1641 <i>HMSO</i>	1962	5	6
Ministry of Agriculture, Northern Ireland				
National Food Survey Committee: Domestic Food Consumption and Expenditure 1960	Cmd. 437 <i>Belfast HMSO</i>	1961	4	6
National Food Survey Committee: Domestic Food Consumption and Expenditure 1960	<i>HMSO</i>	1962	12	6
Annual Review and Determination of Guarantees				
For 1962	Cmnd 1658 <i>HMSO</i>	1962	1	6
Crofting Conditions: Commission of Enquiry	Cmd 9091 <i>HMSO</i>	1954	5	6
Guides to Official Sources, No. 4. <i>Agricultural and Food Statistics</i>	<i>HMSO</i>	1958	4	6
Horticultural Marketing, Report of the Committee on				
Cmdnd 61	<i>HMSO</i>	1957	6	0
Long-term Assurances for Agriculture	Cmnd 23 <i>HMSO</i>	1956		8
National Agricultural Advisory Service Report: The First Eight Years 1946-1954	<i>HMSO</i>	1955	3	6
Farm Incomes in England and Wales <i>Annual</i>	For 1959 <i>HMSO</i>	1961	7	6
Farming Britain, by A. N. Duckham, rev. edn	<i>COI</i>	1961		free*

Fisheries

Fisheries Year Book and Directory 1962	<i>British Continental Trade Press</i>	1962	20	0
Trout in Scotland	<i>HMSO</i>	1960	6	0
Annual Reports				
Fisheries of Scotland	For 1960 Cmnd 1367 <i>HMSO</i>	1961	5	6
Herring Industry Board	For 1961 Cmnd 1723 <i>HMSO</i>	1962	3	6
White Fish Authority (and Accounts)	For 1961-62 <i>HMSO</i>	1962	3	6
Annual Statistical Tables				
Scottish Sea Fisheries	For 1961 <i>HMSO</i>	1962	5	6
Sea Fisheries	For 1961 <i>HMSO</i>	1962	5	0
The Fishing Industry	Cmnd 1453 <i>HMSO</i>	1961	1	0

			s.	d.
Report of the Committee of Inquiry into the Fishing Industry				
	Cmnd 1266 <i>HMSO</i>	1961	8	0
Report of the Committee on Salmon and Freshwater Fisheries				
	Cmnd 1350 <i>HMSO</i>	1961	8	0
Forestry				
EDLIN, H. L. England's Forests	<i>Faber</i>	1958	30	0
The Forestry Commission in Scotland	<i>Forestry Commission</i>	1953		free
Annual Reports				
Forestry Commissioners	For 1960-61 <i>HMSO</i>	1962	5	6
Forest Research	For 1960-61 <i>HMSO</i>	1962	14	0
Britain's Forests [13 booklets]	<i>HMSO</i>	1948		6
			to	to
		1953	1	3
Census of Woodlands 1947-49: Summary Report	<i>HMSO</i>	1951		9
Forestry, Agriculture and Marginal Land, Report by the Natural Resources (Technical) Committee	<i>HMSO</i>	1957	4	0
National Forest Park and Forestry Commission Guides	<i>HMSO</i>	1946	1	6
			to	to
		1961	5	0

12. TRANSPORT AND COMMUNICATIONS

Shipping

BLAKE, G. Lloyd's Register of Shipping, 1760-1960	<i>Lloyd's Register of Shipping</i>	1960	42	0
BOWN, A. H. J., DOVE, C. A. and TOOTH, E. S. Port Operation and Administration. 2nd edn	<i>Chapman & Hall</i>	1960	45	0
CHAMBER OF SHIPPING OF THE UNITED KINGDOM. Annual Report 1961-62	<i>Chamber of Shipping of the United Kingdom</i>	1962		free (limited)
CORPORATION OF LLOYD'S. Lloyd's List Annual Review 1961	<i>Corporation of Lloyd's</i>	1961	1	0
COURSE, Capt. A. G. The Merchant Navy To-day	<i>Oxford University Press</i>	1956	12	6
GROSVENOR, J. The Port of London	<i>Staples</i>	1957	9	6
MAXWELL, DONALD, <i>Editor</i> . Ports of the World, 1961	<i>Shipping World</i>	1961	100	0
——— <i>Editor</i> . Shipping World Year Book and Who's Who 1962	<i>Shipping World</i>	1962	62	6
POLITICAL AND ECONOMIC PLANNING. The British Shipping Industry	<i>PEP</i>	1959	4	0
PORT OF LONDON AUTHORITY. 52nd Annual Report	<i>PLA</i>	1961	1	0
REES, HENRY. British Ports and Shipping	<i>Harrap</i>	1959	18	0
RODRIGO, ROBERT. Search and Rescue	<i>Kimber</i>	1958	21	0
THORNTON, R. H. British Shipping	<i>Cambridge University Press</i>	1959	21	0
Commercial Ports of the United Kingdom				
	Reference Paper R.4539 <i>COI</i>	1960		free*

Inland Transport

SARGENT, J. R. British Transport Policy	<i>Oxford University Press</i>	1958	15	0
Annual Report and Accounts. British Transport Commission				
Vol. I. Report	For 1961 <i>HMSO</i>	1962	7	0
Vol. II. Financial and Statistical Accounts	For 1961 <i>HMSO</i>	1962	20	0
Re-organisation of the National Transport Undertakings				
	Cmnd 1248 <i>HMSO</i>	1960	1	0

			s.	d.
<i>Railways</i>				
ELLIS, C. HAMILTON. British Railway History 1877-1947	<i>Allen & Unwin</i>	1959	35	0
NOCK, O. S. British Railways in Action	<i>Nelson</i>	1956	25	0
——— The Railway Engineers	<i>Batsford</i>	1955	18	0
ROLT, L. T. C. Red for Danger	<i>Bodley Head</i>	1955	16	0
British Transport Commission: Proposals for the Railways	Cmd 9880 <i>HMSO</i>	1956	1	9
——— Re-appraisal of the Plan for the Modernisation and Re-equipment of British Railways	Cmnd 813 <i>HMSO</i>	1959	3	0
Report from the Select Committee on Nationalised Industries: British Railways	<i>HMSO</i>	1960	5	6
<i>Roads</i>				
BUCHANAN, C. D. Mixed Blessing: The Motor in Britain	<i>Hill</i>	1958	30	0
DAVIES, E., <i>Editor</i> . Roads and their Traffic	<i>Blackie</i>	1960	35	0
POLITICAL AND ECONOMIC PLANNING. The Cost of Roads	<i>PEP</i>	1961	3	6
Annual Reports				
Roads in England and Wales	For 1960-61 <i>HMSO</i>	1961	4	0
Road Research	For 1961 <i>HMSO</i>	1962	8	6
The Highway Code. 4th edn	<i>HMSO</i>	1959		6
<i>London Transport</i>				
LONDON TRANSPORT EXECUTIVE. London General: The Story of the London Bus 1856 to 1956	<i>LTE</i>	1956	5	0
——— London Transport in 1960	<i>LTE</i>	1961	2	6
Annual Report				
London and Home Counties Traffic Advisory Committee: London Traffic 1960	<i>HMSO</i>	1962	4	0
Report of the Committee of Inquiry into London Transport	<i>HMSO</i>	1955	5	0
<i>Inland Waterways</i>				
EDWARDS, L. A. The Inland Waterways of Great Britain and Ireland. 2nd edn	<i>Imray, Laurie, Norie & Wilson</i>	1962	45	0
HADFIELD, CHARLES. British Canals: An Illustrated History. rev. edn	<i>Phoenix House</i>	1959	36	0
ROLT, L. T. C. The Inland Waterways of England	<i>Allen & Unwin</i>	1950	25	0
Inland Waterways. Government Proposals following the Report of the Committee of Inquiry	Cmnd 676 <i>HMSO</i>	1959		6
Report of the Committee of Inquiry into Inland Waterways [Bowes Report]	Cmnd 486 <i>HMSO</i>	1958	6	6
<i>Public Transport in Northern Ireland</i>				
Annual Report				
Ulster Transport Authority	For 1960-61 Belfast, <i>UTA</i>	1962	1	0
Civil Aviation				
BRITISH INDEPENDENT AIR TRANSPORT ASSOCIATION. Annual Report				
For 1960-61 <i>BIATA</i>		1962		free
HARVEY, D. G. T. British Civil Aviation	<i>Adlard Coles/Harrap</i>	1955	15	0

			s.	d.
JACKSON, A. J. British Civil Aircraft, 1919—1959				
Volume I	<i>Putnam</i>	1959	63	0
Volume II	<i>Putnam</i>	1960	63	0
PUDNEY, JOHN. The Seven Skies	<i>Putnam</i>	1959	30	0
TAYLOR, JOHN W. R. ABC of British Airports	<i>Ian Allan</i>	1959	2	6
Aeroplane Directory of British Aviation. <i>Annual</i>	<i>Temple Press</i>	1961	30	0
Annual Reports				
Air Transport Advisory Council	For 1960—61 <i>HMSO</i>	1961	6	6
Air Transport Licensing Board. For year ended 31st March 1962	<i>HMSO</i>	1962	3	0
British European Airways Corporation (and Accounts)	For 1961—62 <i>HMSO</i>	1962	8	6
British Overseas Airways Corporation (and Accounts)	For 1960—61 <i>HMSO</i>	1961	7	6
Aviation Safety	Cmnd 1695 <i>HMSO</i>	1962	2	6
Civil Aerodromes and Air Navigational Services	Cmnd 1457 <i>HMSO</i>	1961		9
Report of the London Airport Development Committee to the Minister of Transport and Civil Aviation	<i>HMSO</i>	1957	2	0
The Post Office				
KAY, F. G. Royal Mail. 2nd edn	<i>Rockliff</i>	1955	10	0
ROBINSON, HOWARD. Britain's Post Office	<i>Oxford University Press</i>	1953	25	0
Annual Accounts				
Cable and Wireless Ltd. (with Report of Directors)				
For 1961—62 Cmnd 1797	<i>HMSO</i>	1962	1	6
Post Office Report and Accounts	For 1961—62 <i>HMSO</i>	1962	7	0
Monarchs of All They Surveyed: The Story of the Post Office Surveyors	<i>HMSO</i>	1952	2	6
Post Office Prospects 1962—63	Cmnd 1653 <i>HMSO</i>	1962		8
The Status of the Post Office	Cmnd 989 <i>HMSO</i>	1960		6
Telephone Policy: The Next Steps	Cmnd 436 <i>HMSO</i>	1958	1	0
300 Years of the GPO	<i>COI/HMSO</i>	1961		free

13. FINANCE

ARMSTRONG, F. E. The Book of the Stock Exchange. 5th edn	<i>Pitman</i>	1957	30	0
BANK OF ENGLAND. Bank of England Quarterly Bulletin	<i>Bank of England</i>			free
BRITAIN, Sir HERBERT. The British Budgetary System	<i>Allen & Unwin</i>	1959	25	0
CHUBB, B. The Control of Public Expenditure: Financial Com- mittees of the House of Commons	<i>Oxford University Press</i>	1952	30	0
CLAPHAM, Sir JOHN. The Bank of England: A History, 1694—1914. 2 vols.	<i>Cambridge University Press</i>	1944	63	0
DACEY, W. MANNING. The British Banking Mechanism. 2nd edn	<i>Hutchinson</i>	1958	18	0
GIBB, D. E. W. Lloyd's of London	<i>Macmillan</i>	1957	25	0
HENDERSON, R. F. The new Issue Market and the Finance of Industry	<i>Bowes & Bowes</i>	1951	25	0
HICKS, URSULA K. British Public Finances: Their Structure and Developments, 1880—1952	<i>Oxford University Press</i>	1954	8	6

		s.	d.
HOBSON, Sir OSCAR. How the City Works. 6th edn	<i>News Chronicle</i>	1960	8 6
MACRAE, NORMAN. London Capital Market. 2nd edn	<i>Staples Press</i>	1957	25 0
POWELL, J. ENOCH. Saving in a Free Society	<i>Hutchinson</i>	1960	21 0
RAYNES, H. E. Insurance	<i>Oxford University Press</i>	1960	8 6
ROSE, H. B. The Economic Background to Investment	<i>Cambridge University Press</i>	1960	45 0
SAYERS, R. S. Modern Banking. 5th edn	<i>Oxford University Press</i>	1960	25 0
Annual Reports			
Commissioners of Customs and Excise			
For 1960-61	Cmnd 1566 <i>HMSO</i>	1961	12 6
Commissioners of Inland Revenue			
For 1960-61	Cmnd 1598 <i>HMSO</i>	1962	10 0
Deputy Master and Comptroller of the Royal Mint			
For 1960	<i>HMSO</i>	1961	7 0
Report of the Committee on the Working of the Monetary System			
[Radcliffe Committee]	Cmnd 827 <i>HMSO</i>	1959	15 0
Report of the Company Law Committee [Jenkins Report]			
Cmnd 1749 <i>HMSO</i>			12 6
Control of Public Expenditure [Plowden Report]			
Cmnd 1432 <i>HMSO</i>		1961	1 9
Estimates 1962-63 <i>Annual</i>	<i>HMSO</i>	1962	6 6
Finance Accounts of the United Kingdom for the Financial Year			
<i>Annual</i>	For 1960-61 <i>HMSO</i>	1961	5 0
Financial Statement <i>Annual</i>	For 1962-63 <i>HMSO</i>	1962	2 6
Financial Statistics <i>Monthly</i>	<i>HMSO</i>		7 6
Government Expenditure Below the Line	Cmnd 1680 <i>HMSO</i>	1962	1 6
National Debt <i>Annual</i>	For 1960-61 Cmnd 1574 <i>HMSO</i>	1961	2 6
Northern Ireland Financial Statement <i>Annual</i>			
For 1962-63	<i>Belfast HMSO</i>	1962	1 0
Public Investment in Britain	Cmnd 1522 <i>HMSO</i>	1961	2 3
British System of Taxation			
COI Reference Pamphlet RF.P.5271 <i>HMSO</i>		1962	4 6
British Financial Institutions			
COI Reference Pamphlet RF.P.5162 <i>HMSO</i>		1961	3 6
Britain's Financial Services for Overseas			
Reference Paper R.4881 <i>COI</i>		1961	free*
Rates of Import Duty and Purchase Tax in Britain			
Reference Paper R.5281 <i>COI</i>		1962	free*
Short Guide to United Kingdom Taxes			
Reference Paper R.5163 <i>COI</i>		1961	free*

14. TRADE AND PAYMENTS

Overseas Trade and Payments

British Travel and Holidays Association Annual Report			
For 1961-62	<i>BTHA</i>	1962	free
CLARKE, WILLIAM M. The City's Invisible Earnings			
<i>The Institute of Economic Affairs</i>		1958	5 0
CONAN, A. R. The Rationale of the Sterling Area	<i>Macmillan</i>	1961	21 0
GILLETT BROTHERS DISCOUNT COMPANY. The Bill on London			
<i>Chapman & Hall</i>		1959	21 0
POLITICAL AND ECONOMIC PLANNING. Commonwealth Preference in the United Kingdom			
<i>Allen & Unwin</i>		1960	7 6

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Assistance from the United Kingdom to Overseas Development				
	Cmnd 974 <i>HMSO</i>	1960	1	0
Britain and the European Communities. Background to the Negotiations	<i>HMSO</i>	1962	3	6
United Kingdom Balance of Payments <i>Twice Yearly</i>				
1946-57 (No. 2)	<i>HMSO</i>	1959	10	0
1959-61	Cmnd 1671 <i>HMSO</i>	1962	2	6
Accounts Relating to the Trade and Navigation of the United Kingdom <i>Monthly</i>	<i>HMSO</i>		25	6
Board of Trade Journal <i>Weekly</i>	<i>HMSO</i>		1	3
Report on Overseas Trade <i>Monthly</i>	<i>HMSO</i>		3	6
Britain's Commodity Markets	Reference Paper R.5362 <i>COI</i>	1962		free*
Britain's Trade with the Sino-Soviet Bloc	Reference Paper R.4738 <i>COI</i>	1960		free*
Commonwealth Preference	Reference Paper R.5155 <i>COI</i>	1961		free*
Towards European Integration	Reference Paper R.5243 <i>HMSO</i>	1961		free*
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FLANDERS, ALLAN. Trade Unions	<i>Hutchinson</i>	1952	12	6
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INTERNATIONAL LABOUR OFFICE. The Trade Union Situation in the United Kingdom	<i>ILO</i>	1961	7	6
MARSH, JOHN. Partners in Works Relations	<i>Industrial Welfare Society</i>	1960	5	0
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ROBERTS, B. C. Trade Union Government and Administration in Britain	<i>Bell</i>	1956	31	6

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THOMSON, D. CLEGHORN. Management, Labour and Community	<i>Pitman</i>	1957	35	0
WILLIAMS, GERTRUDE. Recruitment to Skilled Trades	<i>Routledge</i>	1958	23	0
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Chief Inspector of Factories	For 1961 Cmnd 1816 <i>HMSO</i>	1962	6	6
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Industrial Health. Report by the Chief Inspector of Factories	For 1961 Cmnd 1815 <i>HMSO</i>	1962	4	0
Ministry of Labour	For 1960 (last issue) Cmnd 1364 <i>HMSO</i>	1961	7	0
Ministry of Labour and National Service	For 1939-46 Cmd 7225 <i>HMSO</i>	1947	7	0
Automation: Report on the Technical Trends and their Impact on Management and Labour	<i>HMSO</i>	1956	6	0
Directory of Employers' Associations, Trade Unions, Joint Organisations, etc.	<i>HMSO</i>	1960	21	0
Employment Policy	Cmd 6527 <i>HMSO</i>	1944	1	0
Guides to Official Sources, No. 1. Labour Statistics	<i>HMSO</i>	1958	5	0
Industrial Relations Handbook, rev. edn	<i>HMSO</i>	1961	5	6
Positive Employment Policies	<i>HMSO</i>	1958	1	6
Report of the Committee of Enquiry on the Rehabilitation, Training and Resettlement of Disabled Persons	Cmd 9883 <i>HMSO</i>	1956	5	6
Report of the Committee on Selection and Training of Supervisors	<i>HMSO</i>	1962	3	0
Report of the Industrial Safety Sub-Committee of the National Joint Advisory Council	<i>HMSO</i>	1956	1	6
Report of the National Advisory Committee on the Employment of Older Men and Women	Cmd 8963 <i>HMSO</i>	1954	2	0
Second Report	Cmd 9628 <i>HMSO</i>	1955	1	9
Report of the National Youth Employment Council on the Work of the Youth Employment Service 1956-59	<i>HMSO</i>	1959	2	6
Report on Safety and Health in the Building and Civil Engineering Industries 1954-58	Cmdnd 953 <i>HMSO</i>	1960	1	6
Resettlement Advisory Board. Progress Report 1957-59	Cmdnd 789 <i>HMSO</i>	1959	1	3
Services for the Disabled. 2nd edn	<i>HMSO</i>	1962	8	6
Time Rates of Wages and Hours of Labour	<i>HMSO</i>	1961	16	0
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Problems of Progress in Industry (DSIR series)	<i>HMSO</i>	1957	2	0
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Labour Relations and Conditions of Work in Britain	COI Reference Pamphlet RF.P.5120 <i>HMSO</i>	1962	3	6
Health at Work	<i>Ministry of Labour/COI</i>	1961	free	
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BRIGGS, ASA. The History of Broadcasting in the United Kingdom Vol. 1 The Birth of Broadcasting	<i>Oxford University Press</i>	1961	42	0
BRITISH BROADCASTING CORPORATION. British Broadcasting: A Bibliography	<i>BBC</i>	1958	5	0
——— BBC Handbook 1961	<i>BBC</i>	1961	6	0
——— The BBC Television Service: A Technical Description. 3rd edn	<i>BBC</i>	1952	2	6
——— The Public and the Programmes	<i>BBC</i>	1959	8	6
CROZIER, MARY. Broadcasting	<i>Oxford University Press</i>	1958	8	6
GORHAM, MAURICE. Broadcasting and Television since 1900	<i>Dakers</i>	1952		
HIMMELWEIT, HILDA T. <i>and others</i> . Television and the Child: an Empirical Study of the Effect on the Young	<i>Oxford University Press</i>	1958	42	0
PAULU, BURTON. British Broadcasting: Radio and Television in the United Kingdom	<i>University of Minnesota/Oxford University Press</i>	1956	48	0
——— British Broadcasting in Transition	<i>Macmillan</i>	1961	35	0
POLITICAL AND ECONOMIC PLANNING. Television in Britain	<i>PEP</i>	1958	3	6
ROSS, GORDON. Television Jubilee	<i>W. H. Allen</i>	1961	21	0
SIMON OF WYTHENSHAW, Lord. The BBC from Within	<i>Gollancz</i>	1953	16	0
Annual Reports and Accounts British Broadcasting Corporation				
For 1960-61 Cmnd 1503	<i>HMSO</i>	1961	10	6
Independent Television Authority	For 1960-61 <i>HMSO</i>	1962	5	6
Broadcasting: Memorandum on the Report of the Committee on Broadcasting 1960	Cmnd 1770 <i>HMSO</i>	1962	1	3
The Future of Sound Radio and Independent Television [Pilkington Report]	Cmnd 1753 <i>HMSO</i>	1962	18	0
Sound and Television Broadcasting Services in the United Kingdom Reference Paper R.4745	<i>COI</i>	1960		free*

17. THE PRESS

ABRAHAMS, GERALD. The Law for Writers and Journalists	<i>Jenkins</i>	1958	21	0
GENERAL COUNCIL OF THE PRESS. The Press and the People: Eighth Annual Report	<i>The Council</i>	1961	2	6
HERD, HAROLD. The March of Journalism: The Story of the British Press from 1622 to the Present Day	<i>Allen & Unwin</i>	1952	21	0
LEAPER, W. J. Copyright and Performing Rights	<i>Stevens</i>	1957	25	0
MASS OBSERVATION. The Press and Its Readers	<i>Art & Technics</i>	1949	7	6
POLITICAL AND ECONOMIC PLANNING. What's in the Papers	<i>PEP</i>	1956	2	6
——— Performance of the Press	<i>PEP</i>	1956	2	6
——— The Work of Newspaper Trusts	<i>PEP</i>	1959	3	6
ROBBINS, ALAN PITT. Newspapers To-day	<i>Oxford University Press</i>	1956	12	6
TAYLOR, H. A. The British Press	<i>Barker</i>	1961	21	0
WILLIAMS, FRANCIS. Dangerous Estate	<i>Longmans</i>	1957	24	0
——— Journalism as a Career	<i>Batsford</i>	1962	12	6
Business and Specialised Publications of Great Britain Council of Trade/Technical Press		1958		free (limited)
The National Readership Survey <i>Institute of Practitioners in Advertising</i>		1961	252	0

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Newspaper Press Directory 1962 <i>Annual</i>	<i>Benn Bros.</i>	1962	60	0
Willing's Press Guide 1962 <i>Annual</i>	<i>Willing's Press Service</i>	1962	40	0
Writers' and Artists' Year Book 1962 <i>Annual</i>	<i>Black</i>	1962	11	6
Report of the Royal Commission on the Press 1947-49	<i>Cmd 7700 HMSO</i>	1949	15	6
Report of the Royal Commission on the Press	<i>Cmnd 1811 HMSO</i>	1962	13	0
Training of Journalists	<i>UNESCO/HMSO</i>	1958	10	0
The British Press	Reference Pamphlet R.F.P.4917 <i>COI</i>	1961		free*

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ABRAHAM, HAROLD, and CRUMP, JACK, <i>Editors</i> . Athletics	<i>Naldrett Press</i>	1951	12	6
ACHILLES CLUB. Modern Athletics, edited by H. A. Meyer	<i>Oxford University Press</i>	1958	21	0
ALTHAM, H. S. and SWANTON, E. W. A History of Cricket. 4th edn	<i>Allen & Unwin</i>	1948	15	0
GOLESWORTHY, MAURICE. The Encyclopaedia of Association Football	<i>Hale</i>	1961	15	0
GREEN, GEOFFREY. The Official History of the F.A. Cup	<i>Heinemann</i>	1960	21	0
LONSDALE, Lord, and PARKER, ERIC, <i>Editors</i> . The Lonsdale Library [30 vols. on various sports]	<i>Seeley Service</i>	1929	15	0
		to	to	
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OWEN, L. O. History of the Rugby Football Union	<i>Playfair Books</i>	1956	18	0
Amateur Athletic Association Handbook	For 1962 <i>AAA</i>	1962	10	6
Amateur Swimming Association Handbook	<i>ASA</i>	1962	8	6
Badminton Association of England Annual Handbook	<i>BA of E</i>	1962	2	6
English Bowling Association Official Year Book	<i>EBA</i>	1962	2	6
Football Association Year Book	For 1962-63 <i>Heinemann</i>	1962	3	6
The Golfers Handbook 1962	<i>Golfers Handbook, Edinburgh</i>	1962	30	0
Horse and Hound Year Book 1962-63	<i>Odhams</i>	1962	19	0
Lawn Tennis Association Handbook 1962	<i>LTA</i>	1962	7	6
Official Rules of Sports and Games 1961-62	<i>Kaye</i>	1961	25	0
Playfair Rugby Football	For 1962-63 <i>Playfair Books</i>	1962	7	6
Royal Automobile Club Guide and Handbook	<i>RAC</i>	1962	12	6
Ruff's Guide to the Turf	For 1962 <i>Sporting Life</i>	1962	30	0
Wisden's Cricketers' Almanack	<i>Sporting Handbooks</i>	1962	22	6
Yachting World Handbook 1962	<i>Iiffe</i>	1962	45	0

Most of the organisations concerned with sport publish year books covering results and records of the previous season and future prospects; many weekly or monthly periodicals on sport are also published. In addition, some newspapers issue annual surveys of sport.

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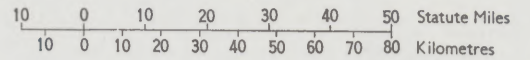
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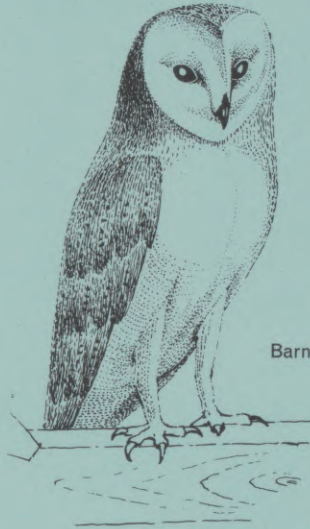
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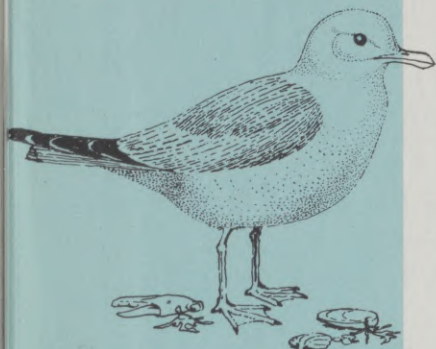
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