



# BRITAIN

AN OFFICIAL HANDBOOK



Her Majesty  
the Queen with  
Commonwealth  
Ministers

at their meeting  
in May 1960

*l. to r.*

MR. EDMUND COORAY  
*Minister of Justice,  
Ceylon*

TUNKU ABDUL RAHMAN  
*Prime Minister,  
Federation of Malaya*

MR. WALTER NASH  
*Prime Minister,  
New Zealand*

SIR ROY WELENSKY  
*Prime Minister,  
Federation of Rhodesia  
and Nyasaland*

MR. JAWAHARLAL NEHRU  
*Prime Minister, India*

MR. HAROLD MACMILLAN  
*Prime Minister,  
United Kingdom*

H.M. THE QUEEN

FIELD-MARSHAL  
MOHAMMED AYUB KHAN  
*President, Pakistan*

MR. JOHN DIEFENBAKER  
*Prime Minister, Canada*

DR. KWAME NKRUMAH  
*Prime Minister, Ghana*

MR. ROBERT MENZIES  
*Prime Minister, Australia*

MR. ERIC LOUW  
*Minister of External  
Affairs, South Africa*









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# BRITAIN

AN OFFICIAL HANDBOOK













HER MAJESTY THE QUEEN  
WITH PRINCE ANDREW



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# BRITAIN

AN OFFICIAL HANDBOOK

PREPARED BY THE CENTRAL OFFICE OF INFORMATION

1961 EDITION

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## INTRODUCTION

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BRITAIN: AN OFFICIAL HANDBOOK, 1961, is the twelfth 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.

BRITAIN: AN OFFICIAL HANDBOOK, 1961, which covers events up to September 1960, 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 United Kingdom 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 1960*



# I. 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° 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 parts<sup>1</sup> 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, 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

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<sup>1</sup>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.

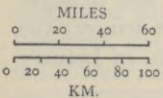
# UNITED KINGDOM Physical



 Land over 600 ft.

 Peaks

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



ISLES OF SCILLY Land's End The Lizard



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 rivers<sup>1</sup> 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 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

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



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. The summer of 1959, however, was unusually dry and sunny from May to September, and many areas, especially in southern, central and eastern England, enjoyed spells of fine rainless weather lasting three weeks or more, particularly in September.

*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 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 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 the Government is establishing 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  $5\frac{1}{2}$  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 authorities<sup>1</sup> and similar arrangements (differing only in detail) in Scotland, Northern Ireland, the Channel Islands and the Isle of Man.

In England and Wales, 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 (see p. 89).

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 (which are solemnised in superintendent registrars' offices) are attended and registered by registrars of marriages.

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

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<sup>1</sup>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.

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 were taken regularly every ten years from 1801 to 1931. There was no census between 1931 and 1951, but a count of the population by age and sex was a by-product of the national registration which was instituted at the outbreak of the second world war in September 1939.

Censuses were taken on 8th April, 1951, by the appropriate authorities in the United Kingdom, the islands of the British seas and the Irish Republic. This was the first simultaneous population count covering all these areas since the censuses of 1911. The co-operation of the Irish Republic in arranging a simultaneous census was of particular value, owing to the considerable sea and land traffic and the movement of population between that country and the United Kingdom. All the reports based on these censuses have now been published. The next census will be taken on 23rd April, 1961.

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.<sup>1</sup>

### Total Population

The enumerated population of the United Kingdom at the censuses taken on 8th April, 1951, was, to the nearest thousand, 50,225,000, excluding 158,000 persons in the Isle of Man and the Channel Islands, which are not strictly parts of the United Kingdom.

The population had increased by about 2½ million since mid-1939, by about 4 million since 1931, by about 6 million since 1921 and by about 43 million—or about sevenfold—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 is still increasing, though relatively slowly, and at mid-1959 the home population of the United Kingdom (i.e. those people actually in the United Kingdom at that time) was estimated at 51,985,000.

The population density of the United Kingdom is one of the highest in the world. It was approximately 533 persons per square mile at the time of the 1951 censuses, and had risen to 552 persons per square mile at mid-1959.

*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.

<sup>1</sup>This commission was appointed in March 1944; its main report was published in March 1949.



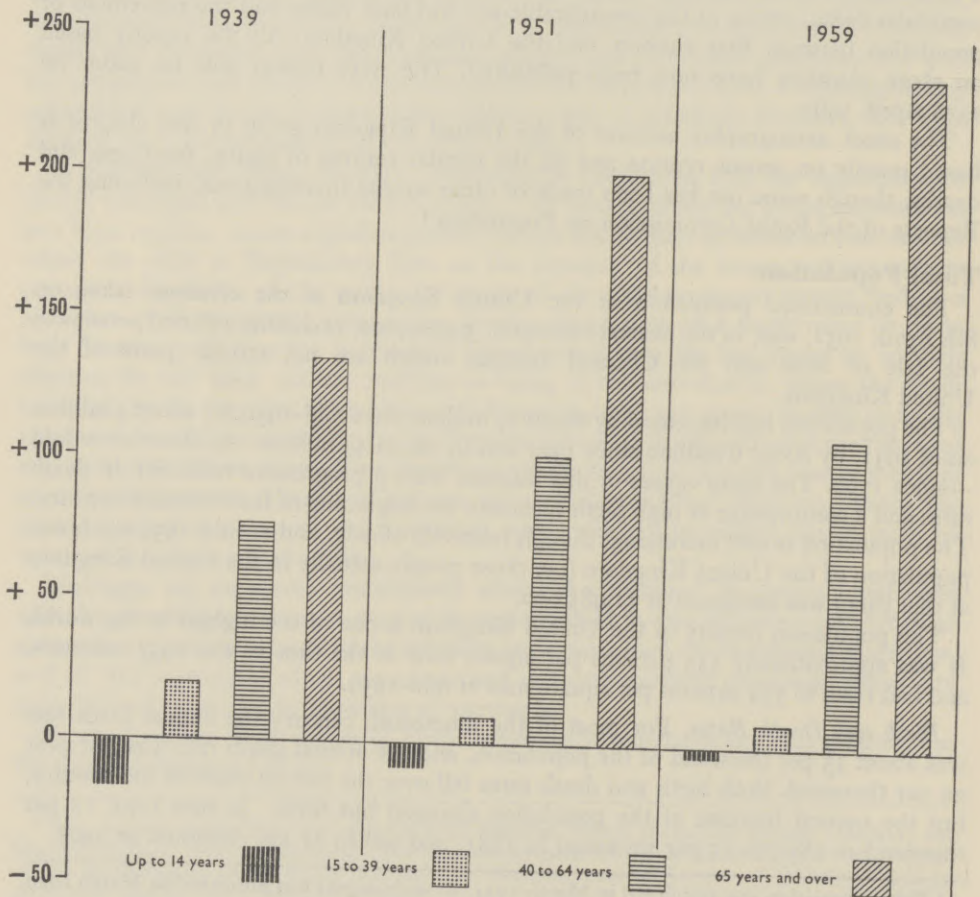
These fertile years, with their comparatively high death rates in all age groups, produced a population of low average age. At each successive census the population of any age group exceeded the corresponding figure at the preceding census, while the short expectation of life further reduced the ratio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

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

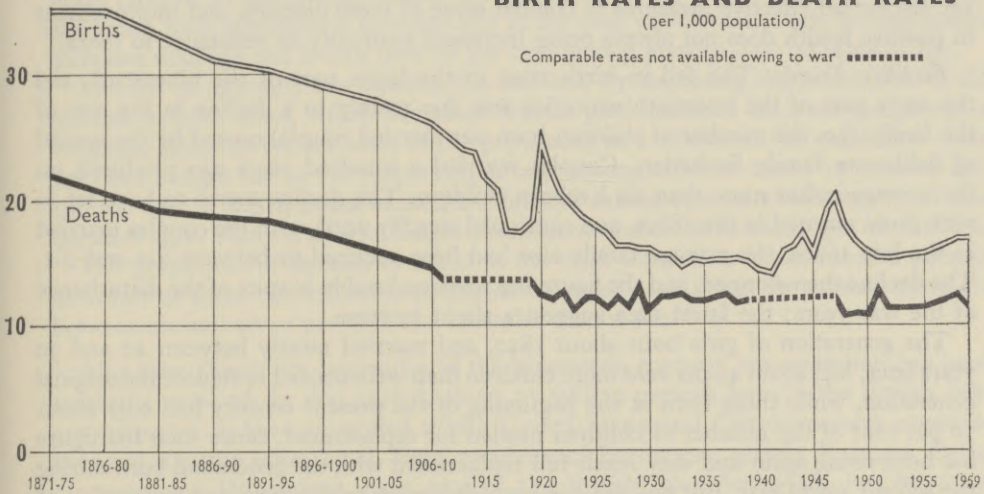
### PERCENTAGE CHANGE IN POPULATION SINCE 1901 BY AGE GROUP

1901 = 0

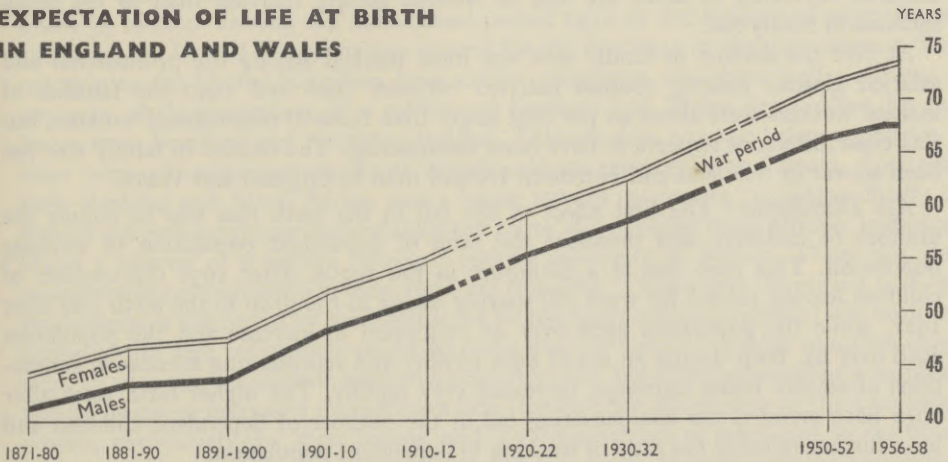


of the expectation of life from about 50 years at birth in 1900 to 1910 to about 70 years at birth in 1955 to 1957. From 1933 onwards the birth rate steadied itself up to the outbreak of the second world war, after which all orderly movement was interrupted by the disturbed conditions of the war years. The 1947 birth rate (20.7 per thousand of the population) was the highest since 1921, but the 1948, 1949, 1950 and 1951 birth rates were progressively lower, though higher than pre-war. From 1951 to 1956, the birth rate remained fairly steady and slightly higher than before the war, at about 15½ to 16 per thousand of the population; since 1956 it has risen, and was 16.9 per thousand in 1959.

**BIRTH RATES AND DEATH RATES**  
(per 1,000 population)



**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. Between 1934 and 1942 maternal mortality was nearly halved, and is now only about one-seventh 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.

*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-1959 the age distribution of the United Kingdom was estimated as follows:

Under 15	..	..	..	23.3 per cent
15 to 64	..	..	..	65.1 per cent
65 and over	..	..	..	11.6 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 1959 and 1974:

- (1) the number of young people aged 15 to 24 will increase by nearly 15 per cent to about  $7\frac{3}{4}$  million;
- (2) the population of working age will increase slowly;
- (3) the number of old people (over 65) will increase by more than  $1\frac{1}{2}$  million.

*Sex Ratio:* Total live births of boys currently exceed those of girls by about 6 per cent, but owing to the higher infant mortality rate among boys, and the higher male death rates in all age groups, women have, until recently, outnumbered men in every age group from adolescence onwards and in the total population. Their predominance increases with age and is now over 60 per cent among persons over 70 years of age.

The fall in mortality has affected the sex ratio by increasing the proportion of old persons in both sexes, which has made female predominance in those age groups a weightier factor in the sex ratio of the population as a whole. At the same time there has been a slight rise in the proportion of boys among children under 15 years of age, and the ages at which males outnumber females extend beyond adolescence well into the adult ages. There is thus no longer a surplus of women at the usual ages of marriage.

The proportion of females to males in the total population has not varied greatly, however, as these two effects have counterbalanced each other. At present there are between six and seven per cent more females than males.

*Migration:* Since the beginning of the nineteenth century, net migration has been markedly outward. In that period, about 25 million persons born in the British Isles are estimated to have emigrated to the United States and Commonwealth countries overseas. On the other hand, large numbers of Europeans, mainly Russians, Poles, Germans and Hungarians, have entered the British Isles during the last 80 years. The net loss by migration since 1871 from the present area of the United Kingdom is about  $3\frac{1}{2}$  million. During the inter-censal period 1931-51 the balance of migration to and from the United Kingdom was inward for the first time in the past century. The net gain to the United Kingdom from civilian migration was about half a million, a net gain of three-quarters of a million to England and Wales being offset by net losses from Scotland and Northern Ireland. This net gain was the balance between a large outward movement mainly of British subjects emigrating to Canada, Australia, New Zealand and South Africa, and a larger inward movement consisting chiefly of British subjects returning home during the 1930s and of aliens from Europe, including about a quarter of a million refugees<sup>1</sup> seeking sanctuary in Britain. There was also considerable net immigration from the Irish Republic. Taking only the period 1946-51 the balance of migration by sea (figures for air transport are not available) was outward owing to the high net outflow (some 65,000 a year) to Commonwealth countries overseas. In 1952 this net outflow reached a peak of 87,000, but it was subsequently reduced, chiefly owing to increased immigration into Britain from other parts of the Commonwealth, particularly the West Indies, and the total balance of migration to and from all countries for the years 1952 to 1956 was certainly small. Exceptionally high migration began towards the end of 1956, partly due to a sudden surge in the flow of emigration to Canada, and also to an influx of British repatriates from Egypt, and of some 21,000 Hungarian refugees,<sup>1</sup> of whom over 14,000 have remained in Britain. In 1957 gross

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<sup>1</sup>The total number of refugees who have come to Britain in the past twenty-five years has been estimated at about 330,000, of whom 80,000 came before the second world war.

migration flows were very large—over 200,000 outwards and probably nearly as many inwards. Emigration in 1958, a year of economic depression in a number of countries, was much less—under 150,000. Preliminary estimates suggest a further reduction in the first half of 1959 but an upswing in the second half. Immigration has continued at a high level, though lower than in 1957, and the inward balance of migration has been estimated at 48,000 in 1958.

*Birthplace and Nationality:* 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 some 200,000.

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 a colony of the United Kingdom 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. They are free to enter and remain in the United Kingdom without restrictions of any kind. Similar treatment is extended to citizens of the Irish Republic who, in the United Kingdom, are not aliens.



## Regional Distribution and Trends

The distribution of the population of the British Isles by country and major administrative region as enumerated at the 1951 censuses, at certain previous censuses back to 1841, and as estimated at mid-1959, 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 1959 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 conurbation<sup>1</sup> 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, pp. 17-18).

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 large 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. 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. The precise definition of Greater London is a matter of opinion, 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

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<sup>1</sup> 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 1841-1959<sup>(a)</sup>

		1841	1871	1901	1931	1951	1959 <sup>a</sup>
ENGLAND (excluding Monmouth- shire)	Persons	14,867,882	21,299,771	30,514,967	37,359,045	41,159,213	42,764,000
	Males	7,259,028	10,352,934	14,717,155	17,839,205	19,745,530	20,599,000
	Females	7,608,854	10,946,837	15,797,812	19,519,840	21,413,683	22,165,000
WALES AND MONMOUTH- SHIRE	Persons	1,046,266	1,412,495	2,012,876	2,593,332	2,598,675	2,622,000
	Males	518,558	706,000	1,011,458	1,293,805	1,270,103	1,286,000
	Females	527,708	706,495	1,001,418	1,299,527	1,328,572	1,336,000
SCOTLAND	Persons	2,620,184	3,360,018	4,472,103	4,842,980	5,096,415	5,192,000
	Females	1,241,862	1,603,143	2,173,755	2,325,523	2,434,358	2,495,000
GREAT BRITAIN	Persons	18,534,332	26,072,284	36,999,946	44,795,357	48,854,303	50,578,000
	Males	9,019,448	12,662,077	17,902,368	21,458,533	23,449,991	24,380,000
	Females	9,514,884	13,410,207	19,097,578	23,336,824	25,404,312	26,198,000
NORTHERN IRELAND	Persons	1,648,945	1,359,190	1,236,952	1,243,000 <sup>b</sup>	1,370,921	1,408,000
	Males	799,711	647,285	589,955	601,000 <sup>b</sup>	667,819	686,000
	Females	849,234	711,905	646,997	642,000 <sup>b</sup>	703,102	722,000
TOTALS GREAT BRITAIN AND NORTHERN IRELAND	Persons	20,183,277	27,431,474	38,236,898	46,038,357	50,225,224	51,985,000
	Males	9,819,159	13,309,362	18,492,323	22,059,533	24,117,810	25,065,000
	Females	10,364,118	14,122,112	19,744,575	23,978,824	26,107,414	26,920,000
ISLE OF MAN	Persons	47,975	54,042	54,752	49,308	55,253	54,000 <sup>e</sup>
	Males	23,011	25,914	25,496	22,443	25,774	25,000 <sup>e</sup>
	Females	24,964	28,128	29,256	26,865	29,479	29,000 <sup>e</sup>
JERSEY	Persons	47,544	56,627	52,576	50,462	57,310	57,000
	Males	21,602	24,875	23,940	23,424	27,291	n.a.
	Females	25,942	31,752	28,636	27,038	30,019	n.a.
GUERNSEY AND ASSOCIATED ISLANDS	Persons	28,521	33,969	43,042	42,743	45,496	46,000
	Males	12,943	15,433	21,140	20,675	22,091	n.a.
	Females	15,578	18,536	21,902	22,068	23,405	n.a.
IRISH REPUBLIC	Persons	6,528,799 <sup>c</sup>	4,053,187	3,221,823	2,933,000 <sup>d</sup>	2,960,593	n.a.
	Males	3,222,485 <sup>c</sup>	1,992,468	1,610,085	1,497,000 <sup>d</sup>	1,506,597	n.a.
	Females	3,306,314	2,060,719	1,611,738	1,436,000 <sup>d</sup>	1,453,996	n.a.
TOTALS BRITISH ISLES	Persons	26,836,116	31,629,299	41,609,091	49,113,870	53,343,876	n.a.
	Males	13,099,200	15,368,052	20,172,984	23,623,075	25,699,563	n.a.
	Females	13,736,916	16,261,247	21,436,107	25,490,795	27,644,313	n.a.

Source: Census Reports and Estimates by Population Authorities.

(a) The figures for 1841, 1871, 1901, 1931 and 1951 (with the exception of those indicated in (b) and (d) below) are for populations enumerated in censuses. The figures for 1959 are mid-year estimates to the nearest thousand. The figures for Scotland and Northern Ireland are rounded from estimates in units and this may lead to apparent small discrepancies in the totals.

(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).

(e) These figures take no account of migration.

n.a. = not available.

TABLE 2  
DISTRIBUTION OF THE POPULATION(a)

Thousands

	Area in square miles(b)	1921	1931	1939(c)	1951	1959(c)
Urban and rural districts						
England and Wales:						
Urban districts ..	8,240.5	30,035	31,952	34,183	35,336	36,348
Rural districts ..	50,104.5	7,851	8,000	7,277	8,422	9,038
Scotland:						
Cities and burghs ..	416.3	3,311	3,362	3,525	3,563	3,664
Landward areas ..	29,378.6	1,572	1,481	1,482	1,534	1,528
Northern Ireland:						
Urban districts ..	78.5	638(d)	678(d)	684	728	775
Rural districts ..	5,159.5	619(d)	602(d)	611	643	632
Standard regions of						
England and Wales						
Northern .. ..	7,470.7	3,020	3,038	3,003	3,141	3,222
East and West Ridings	3,962.7	3,731	3,929	3,976	4,097	4,150
North Western ..	3,083.0	6,023	6,197	6,237	6,447	6,507
North Midland ..	6,303.8	2,746	2,939	3,065	3,378	3,560
Midland .. ..	5,024.9	3,503	3,743	3,987	4,423	4,640
Eastern .. ..	7,263.9	2,224	2,433	2,691	3,098	3,576
London and						
South Eastern ..	4,190.5	9,486	10,330	11,046	10,906	11,024
Southern .. ..	4,846.3	1,954	2,135	2,317	2,649	2,742
South Western ..	8,183.5	2,544	2,615	2,673	3,021	3,343
Wales .. ..	8,015.8	2,656	2,593	2,465	2,599	2,623
Conurbations						
Greater London ..	721.6	7,488	8,216	8,728	8,348	8,205
South East Lancashire	379.6	2,361	2,427	2,421	2,423	2,419
West Midlands ..	268.8	1,773	1,933	2,079	2,237	2,292
Central Clydeside ..	326.5	1,638	1,690	1,783	1,758	1,798
West Yorkshire ..	480.9	1,614	1,655	1,658	1,693	1,693
Merseyside .. ..	148.5	1,263	1,347	1,357	1,382	1,384
Tyneside .. ..	90.1	816	827	825	836	852
Cities						
Belfast .. ..	23.9	415(d)	438(d)	439	444	434
Birmingham .. ..	79.9	919	1,003	1,053	1,113	1,092
Bradford .. ..	39.9	286	298	288	292	289
Bristol .. ..	41.2	377	397	419	443	437
Cardiff .. ..	23.6	221	227	226	244	254
Coventry .. ..	29.9	128	167	220	258	286
Edinburgh .. ..	50.6	420	439	472	467	469
Glasgow .. ..	60.4	1,034	1,088	1,128	1,090	1,077
Kingston upon Hull ..	22.4	287	314	318	299	302

Continued overleaf



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

	Area in square miles( <i>b</i> )	1921	1931	1939( <i>c</i> )	1951	1959( <i>c</i> )
<i>Cities—contd.</i>						
Leeds . . . . .	59.8	458	483	497	505	513
Leicester . . . . .	26.5	234	239	263	285	275
Liverpool . . . . .	42.7	803	856	822	789	758
Manchester . . . . .	42.6	730	766	728	703	672
Newcastle upon Tyne	17.3	275	283	293	292	271
Nottingham . . . . .	25.3	263	269	279	306	313
Sheffield . . . . .	61.9	491	512	522	513	499
Stoke on Trent . . . . .	33.1	240	277	271	275	271

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 for cities relate to the areas as these were defined in the year noted at the head of each column. The figures for regions and conurbations, however, relate as nearly as possible to areas as constituted in 1951.

(*b*) Area at the date of the 1951 census of population.

(*c*) Mid-year estimate.

(*d*) 1926 and 1937 census figures.

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 official conurbation, which roughly corresponds to the continuously built-up area, fell by some 380,000 to 8,350,000 in 1951.

During the 1950s, the population of the inner areas has continued to fall; and this has been accompanied by significant increases throughout a wide area beyond the official conurbation. A broad belt of almost continuous population increase now surrounds the conurbation and is estimated to contain about 20 per cent more people than in 1951. It completely encircles London, includes and passes beyond all the London new towns and extends along every major road and rail 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 1960 of some 12,000,000. The population of the region has grown by only about half a million, or 4 per cent, since 1951. This rise is mainly due to natural increase (excess of births over deaths) and the changes in population are essentially attributable to redistribution rather than to a net immigration from beyond the region. This redistribution has resulted both from voluntary or private moves and planned transfers of population. 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.

These changes, particularly the spread of commuter populations, have been facilitated and encouraged by progress in transport—electrification and diesel developments on the railways and the greatly increased number of private cars.

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 1950s have 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 and those in 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 1951, nearly 100,000 persons, mainly in Ross and Cromarty, Inverness, Argyll, and Lanark, spoke the Scottish form of Gaelic<sup>1</sup>, 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.

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.

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<sup>1</sup> 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.

In 1911 there were about nine million private households<sup>1</sup> 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, so much more rapid than the 19 per cent increase in the total population for the same period, was, in fact, of the same order as the increases in the numbers of persons over 24 years old and of married persons. In other words, the increasing age of the population 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.

It has been difficult to increase the number of separate dwelling-places (houses or flats) sufficiently rapidly to overtake the increasing number of private households, and this difficulty was aggravated by the suspension of house-building and the destruction of property during the second world war. In 1951, there were only some 13.7 million structurally separate dwelling-places in Great Britain, and about 2 million households shared a home. About 70 per cent of the dwellings were houses of four to six rooms (mainly terraced or semi-detached houses), while 20 per cent were of three rooms or less (mainly flats). The proportion of small dwellings was greatly above average in Scotland, where there were many slum tenements, and considerably above average in London.

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 persons living alone, 6.9 million married couples or widowed persons with children of any age, 600,000 single persons living alone. Over a third of all married couples living alone were 60 years old or over; less than a quarter of the married couples under 40 years of age in these simplest types of household had no children. 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.

Only 2 million households contained persons less closely related to the head than parent or brother or sister, or contained non-relatives. In nearly half of these households, a second family—a married couple or a woman with children—was living with the first family, usually the parents. Of the remaining 1.1 million households which contained some unrelated or distantly related persons (numbering 1.24 million), 300,000 households consisted of only two persons.

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.

It was estimated that in 1951 there were 180,000 households in Great Britain employing a total of 205,000 resident domestic servants, of whom 178,000 were in England and Wales. This compares with an estimate of 706,800 resident domestic servants in England and Wales in 1931.

<sup>1</sup> Counting persons living alone as one-person households.



Over half of the resident domestic servants in 1951 worked in small households (of not more than three persons including the servant), while more than a quarter were acting as the sole servant and household companion to one person of over 40 years of age. Already in 1951, a large proportion of resident domestic servants—and possibly the majority of those working for families with children—were girls from Ireland or from continental Europe, many of whom were attracted by the opportunity to see Britain or to learn English. Since 1951, the number of girls from overseas coming to take resident domestic posts has increased.

In the years since 1951, considerable changes in the numbers, size and composition of households may have taken place. No firm information on trends is available but, in view of the extent of house-building and the continued increase in the number of old people it is likely that the average size of households has continued to decrease.

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,<sup>1</sup> 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 1½ 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 (see pp. 15 and 18).

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 home and the spread of

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

labour-saving devices. Two households in every three now have a vacuum cleaner, one in three a washing machine and about one in eight a refrigerator.

Compared with earlier generations, however, most people today have 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. About half of the population take at least a week's holiday away from home every year, mostly in July and August. Some two-thirds of these spend their holiday by the sea in Britain. A relatively small but rapidly increasing number of holiday-makers go abroad: over three million in 1959, including travellers to the Channel Islands and to the Irish Republic; in the same year 1,390,000 overseas tourists (including 353,000 from the United States) came to visit Britain.

At least a quarter of the adult population is interested in playing or going to watch outdoor sports.<sup>1</sup> Sporting interests are becoming increasingly varied (see Chapter XVII) but Association football and cricket are 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 p. 497).

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-1960, about two-thirds 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 has increased since 1953 from 2 million to over 10½ million (in mid-1960) and is still increasing rapidly (see p. 478).

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

There were some 8.4 million licensed motor vehicles in the summer of 1959, of which over 4.9 million were private cars and 1.7 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 ten 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

<sup>1</sup> A social survey of Derby made in 1953 showed that half the adult population in that town, including two-thirds of the men, were at least occasional spectators of sporting events, and that over one-fifth, including over half those under 25 years of age, actually participated, most of them regularly.

the sons of unskilled workers were themselves in occupations in that category. 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'.

Such social changes often call for difficult adjustments. Many families of unskilled and semi-skilled workers, for example, suddenly find themselves with plenty of 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 high 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 marked fall in attendances at cinemas and, to a lesser extent, at football matches, formerly the main entertainments of large sections of the community. The cinema remains, however, the most popular form of indoor entertainment outside the home. To young men and women and older children, cinema-going is a social occasion, and probably at least half of them go as often as once a week.

Attendances at theatres are much smaller, though most people visit them occasionally. There are only some 500 theatres in the country compared with some 3,500 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, and it is thought that about five million people go dancing every week. There are estimated to be some 3,000 to 4,000 regular dance halls in the United Kingdom which are open at least three times a week, and between 4,000 and 5,000 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 wide and increasing 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).

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. Over 2,200 Townswomen's Guilds, with a total membership of about 250,000, 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 8,500 institutes with over 450,000 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 coffee bar. A characteristic of many of these coffee bars, which stay open until late at night and are popular as a 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 or gramophone, viewing television, entertaining their friends,<sup>1</sup> looking after pets<sup>2</sup> 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. Even in the towns many houses have some garden, and the standard of both town and country gardens is high. It is estimated that there are over 4,000 local horticultural societies in Britain and 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 VIII). People with such interests are still in a minority,<sup>3</sup> but they constitute an important and characteristic feature of British life and, indeed, an essential ingredient in the working of British democracy.

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<sup>1</sup> 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.

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

<sup>3</sup> The figures from the Derby Survey showed that eight per cent of adults in that town belonged to intellectual or cultural clubs or societies, eleven per cent were members of some political party, thirteen per cent went to church every week (9 out of 10 homes had a Bible), and three per cent held some church office.

## II. GOVERNMENT

### GENERAL SURVEY

The United Kingdom is a monarchical State, whose origins go back to the ninth century when all England was unified under a Saxon king. Wales and Ireland became part of the kingdom 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 authority of this Parliament was extended to the whole of the United Kingdom by a provision of the Act for the Union of Great Britain and Ireland, 1800, which joined the Irish Parliament to the Parliament of Great Britain. In 1922, the United Kingdom was diminished by the separation of the 26 counties of Southern Ireland (now the Irish Republic). 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 individual needs. 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. Scotland, although it has no separate Parliament, has its own system of laws, its own courts, its own established church, its own educational system and its own Government departments under the direction of the Secretary of State for Scotland, who is a member of the United Kingdom Cabinet. 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, 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, in addition, 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, who are responsible for administration at the national level; (c) local authorities, who 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.

This chapter 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.

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.

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



# THE ROYAL FAMILY

From the reign of Queen Victoria up to September 1960

QUEEN VICTORIA, 1819-1901

m. Prince Albert of Saxe-Coburg and Gotha (Prince Consort)

KING EDWARD VII, 1841-1910  
m. Pss. Alexandra of Denmark  
(QUEEN ALEXANDRA, 1844-1925)

KING GEORGE V, 1865-1936  
m. Pss. Mary of Teck (QUEEN MARY, 1867-1953)

Duke of Windsor, b. 1804  
KING EDWARD VIII (abdicated 1936), m. Wallis Simpson  
The Queen Mother

QUEEN ELIZABETH II, b. 1926, m. Philip, Duke of Edinburgh  
Pss. Margaret, b. 1930, m. Anthony Armstrong-Jones

Charles, Prince of Wales, b. 14.11.48  
Pss. Anne, b. 15.8.50  
Pr. Andrew, b. 19.2.60

Earl of Harewood, b. 1923, m. Marion Stein  
Viscount Lascelles, Hon. James Lascelles, b. 1950  
Hon. Jeremy Lascelles, b. 1955

2 brothers and 3 sisters

Henry, Duke of Gloucester, b. 1900, m. Lady Alice Montagu Douglas-Scott

Edward, Duke of Kent, b. 1935  
Pss. Alexandra, b. 1936  
Pr. Michael, b. 1942

Pr. William, b. 1941  
Pr. Richard, b. 1944

Hon. Gerald Lascelles, b. 1924, m. Angela Dowding  
Henry Ulrick Lascelles, b. 1953

Pss. Alice, 1843-1878  
m. Grand Duke Louis of Hesse

Pss. Victoria, 1863-1950  
m. Marquess of Milford Haven

Pss. Alice, b. 1885, m. Pr. Andrew of Greece  
Pss. Louisa, b. 1889, m. Cr. Prince of Sweden  
George Louis, Earl Mountbatten, b. 1900, m. Edwina Ashley  
Ces. Nadejda of Russia

Philip, Duke of Edinburgh, b. 1921, m. Pss. Elizabeth (QUEEN ELIZABETH II)

David Michael, 3rd Marquess, b. 1919  
Lady Patricia, b. 1924, m. Baron Brabourne  
Lady Pamela, b. 1929, m. David Hicks  
2 sons and 2 daughters

## Order of Succession to the Throne

Prince of Wales  
Prince Andrew  
Princess Anne  
Princess Margaret  
Duke of Gloucester  
Prince William  
Prince Richard  
Duke of Kent  
Prince Michael  
Princess Alexandra  
Princess Royal  
Earl of Harewood  
Viscount Lascelles  
Hon. James Lascelles  
Hon. Jeremy Lascelles

*In the Order of Succession the sons of the Sovereign and their descendants have precedence over the daughters. The daughters and their descendants have precedence over lateral lines.*

## Dates Relating to Queen Elizabeth II

Marriage: 20 Nov. 1947  
Accession to throne: 6 Feb. 1952  
Coronation: 2 June 1953  
Official Birthday Celebration: Early in June

Sophia<sup>1</sup> 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 peers, 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.

### **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.

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<sup>1</sup> The Electress of Hanover, grand-daughter of James I.

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 show mercy to or pardon people convicted of crime. As 'the fountain of honour', the Queen confers peerages, knighthoods and other honours,<sup>1</sup> and makes appointments 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 prerogative,<sup>2</sup> 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 ways in which the royal will can, constitutionally, 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, 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 Crown<sup>3</sup>) to whom the Sovereign may delegate by Letters Patent certain royal functions. But Counsellors of State may not, for instance,

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<sup>1</sup> 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 conferred by the Sovereign personally.

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

<sup>3</sup> 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.



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

The Parliament at Westminster is representative of all the countries of the United Kingdom: England and Wales, Scotland, and Northern Ireland. It can legislate for the United Kingdom as a whole, or for any of these constituent countries separately, or for any combination of them. It can also legislate for the Channel Islands and the Isle of Man. It is not, however, the only legislature, for the Northern Ireland Parliament has power to legislate in certain spheres, 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) legislate on domestic matters.<sup>1</sup> Nevertheless, the Parliament at

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<sup>1</sup> 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.

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 of the constitution; 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. In the first place, pressure of business in recent decades has resulted in a large and increasing amount of delegation of legislative authority to ministers and of specific powers to local authorities and to public corporations of various kinds; powers delegated in this way could, of course, be withdrawn by Parliament, but existing demands on parliamentary time make such a development extremely unlikely. Secondly, the system of party government in the United Kingdom effectively discourages Parliament from acting in too arbitrary a fashion; any parliamentary majority which abused its powers would almost certainly lose electoral support.

### **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, since Parliament meets on the personal summons of the monarch. However, the passing of the Representation of the People Act, 1867, made the duration of Parliament 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 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 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 until Parliament is summoned again, when any measures not yet passed must be reintroduced, unless it has been decided that they are to be abandoned.

During the 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 length of a session is about 160 sitting days, divided by custom into the following periods: one from November until Christmas lasting about 30 sitting days, one from January to Easter of about 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 about 10 sitting days in October, after the long summer recess.

### The House of Lords

The House of Lords consists of just over 900 peers, as follows: (1) princes of the royal blood (who nowadays take no active part in proceedings), (2) 26 spiritual lords (the two archbishops and 24 senior bishops of the Church of England), (3) all hereditary peers (other than minors and those who have not proved their right to a writ of summons) of England, Great Britain, and the United Kingdom,<sup>1</sup> (4) 16 hereditary peers of Scotland elected from their own number for each Parliament in accordance with the provisions of the Treaty of Union, 1707, (5) one hereditary peer of Ireland elected for life,<sup>2</sup> (6) nine Lords of Appeal in Ordinary, appointed under the provisions of the Appellate Jurisdiction Act, 1876, to assist the House in the performance of its judicial functions (see pp. 86 and 89) and holding their seats in the House for life, and (7) a number of other life peers (including life peeresses)<sup>3</sup> created under the provisions of the Life Peerages Act, 1958.

Temporal peerages (both hereditary and life) are conferred as a mark of distinction by the Sovereign on the advice of the Prime Minister. Hereditary peerages, with the exception of the Scottish and Irish peerages, carry with them, for men over 21 years of age, a right to a seat in the House of Lords, 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 they are not expected to attend the House.

Peers in constant attendance at the House of Lords are generally persons of considerable experience, many of whom are 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 in order of precedence 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

<sup>1</sup> Peerages created between 1707 (the Treaty for the Union of England and Scotland) and 1800 are peerages of Great Britain; those created since the Act for the Union of Great Britain and Ireland, 1800, are peerages of the United Kingdom.

<sup>2</sup> By the Act for the Union of Great Britain and Ireland, 1800, the Irish peers were entitled to elect 28 representatives, but since 1922 no new peers have been elected.

<sup>3</sup> In August 1960, there were 25 life peers, of whom 5 were women.



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 popular assembly elected by an almost universal adult suffrage and containing members (both men and women) from all sections of the community. There are at present 630 members of 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 or resignation of a member, or as a result of the elevation of a member of the House of Commons to the House of Lords.

The chief parliamentary 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. In addition, there are the party officials, i.e. the Government and Opposition Whips. 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 (established in 1944) keep constituencies constantly under review and submit periodic reports, either recommending some alteration in boundaries if, for instance, movement of the population has made this necessary, or recommending no change. Changes in the boundaries of constituencies 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 repeals and re-enacts 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 whose names are on the electoral register,<sup>1</sup> and who are resident in that constituency on the qualifying date. 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,

<sup>1</sup> 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.

may also be allowed if the voter cannot attend in person for such reasons as illness 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 peers, clergy of the Church of England, the Church of Scotland, the Church of Ireland, or the Roman Catholic Church, undischarged bankrupts, and those expressly precluded from standing as candidates under the House of Commons Disqualification Act, 1957, such as 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**

Both Houses of Parliament enjoy certain privileges and immunities designed to protect them from unnecessary obstruction in carrying out their duties. These privileges apply collectively to both Houses 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 for peers as for members of the House of Commons; freedom of speech in debate; freedom of access to the Sovereign for each peer individually; and 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 put up candidates for election; any other citizen who wishes may also stand.<sup>1</sup> 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 formal 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

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<sup>1</sup> 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.





debated and on the time to be allowed; sometimes even on the information to be provided and the proposed line of attack. In this way, Parliament has a chance of hearing a full discussion on policy from every point of view.

Outside Parliament, party control is exercised by the national and local organisations; inside Parliament, it is exercised by the Whips, who in addition to their other functions are expected to maintain the voting strength of their parties by ensuring the attendance of members at important debates. In the House of Commons, this work is done for the Government by the Parliamentary Secretary to the Treasury (the Chief Whip), the Junior Lords of the Treasury, and the political officers of Her Majesty's Household—the Treasurer, the Comptroller and the Vice-Chamberlain. The Opposition Whips have no official position, but their parliamentary duties are the same. There are also Government and Opposition Whips in the House of Lords.

### **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 strictly speaking, is not subject to parliamentary approval at all).

### **Parliamentary Procedure**

Parliamentary procedure is based on forms and rules, many of which date back to the beginning of the sixteenth century and even earlier.

Each House has its own standing orders, and although the system of debate is much the same in the two Houses, in the House of Commons the Speaker has a far greater measure of control. In the House of Lords, the office of Speaker could be held by a commoner, since the woolsack on which the Lord Chancellor sits as Speaker is technically outside the precincts of the House,<sup>1</sup> but in fact, the holder of the office is always created a peer. The office carries with it no inherent authority to check or curtail debate, such matters being decided by the general sense of the House and not by rulings of its Speaker.

In the Commons, the Speaker has the prime duty of controlling debate. It is his responsibility to see that parliamentary time is used to the best possible advantage and, therefore, although he must carefully guard against abuse of procedure or any infringement of minority rights, he has power to limit unreasonable obstruction and his rulings on points of order cannot be challenged at the time. It is the duty of the Speaker to allow or disallow a closure motion (i.e. a motion to curtail or end discussion so that the matter may be put to the vote) and generally to enforce the rules of debate of the House. In cases of grave and continuous disorder, he may even adjourn the House or suspend the sitting.

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

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<sup>1</sup> When the Lord Chancellor takes part in the debates of the House of Lords (as he frequently does), he moves away from the woolsack.

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 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. 86 and 89) the question is put in such a way that, if the votes were equal, there would be no interference with the order under appeal.

The Speaker of the House of Commons has the responsibility of deciding whether a Bill is a Money Bill (i.e. a Bill dealing only with national taxation and finance, with regard to which the powers of the House of Lords have been curtailed by the Parliament Act, 1911); and who, in case of doubt, is the Leader of the Opposition. He is also responsible for such matters as the decision whether a *prima facie* case has been made against persons accused of breach of privilege; the issue of warrants for elections to fill vacancies in the House; and the appointment of the chairmen of the standing committees.

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

### *Parliamentary Committees*

A committee of the whole House is the House itself, presided over by a chairman instead of the Speaker, appointed to consider Bills in detail, clause by clause, and also (in the House of Commons) the resolutions authorising the expenditure of public money. The Committees of Supply and of Ways and Means are committees of the whole House of Commons, whose chief function is to 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 Bills and other business committed to them. With the exception of the Scottish Standing and Grand Committees<sup>1</sup> (which deal with Public Bills and other matters relating to Scotland), and the Welsh Grand Committee<sup>2</sup> (which considers the annual report for Wales and selects specified subjects for debate), each standing committee consists of from thirty to fifty members nominated by the Committee of Selection (a body 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; and
- (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 Committees on Public Accounts, on Estimates, on Statutory Instruments, and on the nationalised industries, tend to be re-appointed each session. Others are set up as and when required.

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<sup>1</sup> The Scottish Standing Committee consists of thirty members nominated from Scottish constituencies with up to twenty other nominated members, and the Scottish Grand Committee contains all the members for the Scottish constituencies, and not more than fifteen others.

<sup>2</sup> 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.

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

### *Legislation*

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

Bills may be introduced 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 are introduced in the Commons, while legislation of an intricate but non-financial nature is frequently introduced and fully discussed in the Lords before being sent to the Commons, where it can then be dealt with more speedily.

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 and several weeks depending on the nature of the Bill) it may be given a Second Reading as the result of a debate on its general merits or principles. It is then referred for detailed examination (in the Commons) 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.

An exception to this procedure is made in the case of some 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. As a general rule, these Bills are introduced in the House of Commons upon resolutions in a committee of the whole House 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, which is 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; and 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 Bill which has been passed by the House of Commons in two successive sessions may be presented for 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.

### *Delegated Legislation*

Delegated legislation, which is legislation not by Act of Parliament but by Orders in Council, Orders, Warrants, Regulations and Rules, 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 has become generally accepted, and there are at present few Acts of Parliament which do not contain provisions for its use.

The system of delegated legislation empowers ministers and other authorities to regulate administrative details after a Bill has become an Act. Its advantages are said<sup>1</sup> 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.

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<sup>1</sup> 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.

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 instruments<sup>1</sup> 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.

### **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', and thus to force 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 XII, 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, initiated by the Opposition, for the examination 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 it, 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 Parliament 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.

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<sup>1</sup> 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.').

## 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 has increased to nearly five 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 elected by the House of Commons 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. The Northern Ireland Parliament is also prohibited from making laws which would interfere with religious freedom, and from taking property without compensation.

In consequence of these reservations, 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. In 1960, there were just under 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; as Minister for Science he exercises particular supervision over all matters relating to scientific research.

### *Judicial Committee*

The Judicial Committee of the Privy Council is the final court of appeal on a number of legal issues arising in certain member nations of the Commonwealth and in the United Kingdom dependent territories. Its appellate jurisdiction derives 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.

Appeals come to it in limited categories of cases where a right of appeal has been specially created, e.g., by Statute, Order in Council or Letters Patent, or by special leave of the Sovereign in Council on the advice of the Judicial Committee. Appeals are heard by a board of three or five drawn from the committee, depending on the significance of the case, the quorum being three. Invitations to sit on the board are issued by the Lord Chancellor, who thus determines which members of the committee shall hear particular appeals. The boards are generally selected from the Lord

Chancellor, ex-Lord Chancellors and Lords of Appeal in Ordinary, although Lords Justices of Appeal and other members of the Privy Council who have held high judicial office are also asked to sit when business is heavy. Chief Justices and certain judges from other Commonwealth countries have usually been sworn of the Privy Council and may be invited to sit on the boards.

## HER MAJESTY'S GOVERNMENT

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

### 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. *Departmental Ministers*, some of whom are known as Secretaries of State. There are at present seven Secretaries of State—for the Home Department, Foreign Affairs, Scotland, Commonwealth Relations, Colonies, War, and Air. The more recently created posts usually have the formal title of 'Minister'; and there are, for example, Ministers of Agriculture, Fisheries and Food; Aviation; Defence; Education; Health; Housing and Local Government (also for Welsh Affairs); Labour; Pensions and National Insurance; Power; Transport; and Works. 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 financial and central departments); the President of the Board of Trade; the First Lord of the Admiralty; and the Postmaster General.
3. *Non-Departmental Ministers*, or ministers who are the holders of various traditional offices, including the Lord President of the Council, the Lord Privy Seal, the Chancellor of the Duchy of Lancaster,<sup>1</sup> the Paymaster-General and, at present, a Minister without Portfolio. Usually these ministers have few or no departmental duties and are thus available to perform any special functions which the Prime Minister may wish to entrust to them. Sometimes, however, traditional offices are combined with major departmental duties: for example, in the present Government, the Lord President of the Council is entrusted with the general duty of promoting scientific and technological development as Minister for Science (a post created in October 1959) and the Lord Privy Seal has departmental duties in the Foreign Office where he is specially concerned with European Affairs.
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

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<sup>1</sup> 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. In the present Government, the Chancellor of the Duchy is responsible for the co-ordination of the Government Information Services.

and the Solicitor General; for Scotland, the Lord Advocate and the Solicitor General for Scotland.

5. *Ministers of State*, who are deputy ministers in Government departments where the work is particularly heavy and complex, or when it involves frequent travelling overseas. There is now a Minister of State in the Foreign Office, one in the Commonwealth Relations Office, one in the Colonial Office, and one at the Board of Trade. In addition, the Secretary of State for Scotland is assisted at ministerial level 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 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 Commissioner of the Treasury, and may also hold another portfolio.

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 for the appointment of Church of England archbishops, bishops and other senior clergy and incumbents of Crown livings, as well as for appointments to high judicial and civil offices such as those of the Lord Chief Justice, Lord Justices of Appeal, Lords of Appeal in Ordinary, Lord Lieutenants of counties,<sup>1</sup> some Regius Professors in certain

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<sup>1</sup> 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.



universities, and trustees of certain national museums. He also makes recommendations for the award of many civil honours and distinctions.

### **The Cabinet**

The Cabinet is composed of a number of ministers who are selected by the Prime Minister personally. Membership is not fixed, although the holders of certain important ministerial offices are always included; the number of members is now usually not more than twenty.

The origins of the Cabinet can be traced back to informal conferences held between the Sovereign and his or her 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 are<sup>1</sup>: 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 the several departments of State. The Cabinet has no legal authority, however, since its decisions are valid by convention and not by law.

### **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 any information. 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 debate, 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.

In determining Government policy, whether in the form of proposed legislation for the consideration of Parliament or otherwise, the Cabinet is able to take into account the widest possible range of interests in the country as a whole, by means of an elaborate machinery of consultation, both formal and informal. For the investigation of matters considered to be of the greatest importance, and where time is not of the essence, the procedure frequently adopted is the appointment (by Royal Warrant) of a Royal Commission, whose members are selected on grounds of their wide experience and diverse knowledge of the subject matter under consideration. A Royal Commission examines written and oral evidence from many interested organisations and individuals and, on this evidence, submits a report containing recommendations which the

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

Government may accept in whole or in part, or upon which it may decide to take no further action or to delay action until a later date.

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 Secretariat of the Cabinet, known as the Cabinet Office.

### **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. 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; in the present Government, the Foreign Secretary is represented in the Commons by a Cabinet Minister, the Lord Privy Seal.

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.

Ministerial responsibility 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 organs of Government used to give 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 which, while not forming part of Government departments, are 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, e.g., the Post Office and the Board of Customs and Excise, covers the United Kingdom as a whole. Other departments cover Great Britain (England and Wales, and Scotland, but not Northern Ireland) e.g., the Ministry of Labour; others cover England and Wales only, e.g., the Ministry of Health, and there are similar but separate departments for Scotland and Northern Ireland. Some departments, e.g., the Ministry of Education, make special arrangements for Welsh affairs.

Departments differ in size and in the number, type and complexity of their functions, and some have regional and local offices. Most departments have a minister of their own in control; a very few have no minister responsible to Parliament, e.g., the Exchequer and Audit Department under the Comptroller and Auditor General, who is an officer of Parliament and not of the Government; and some are in the charge of ministers who have other duties. For instance, Treasury ministers are responsible for the administration of 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, the National Savings Committee and certain museums and art galleries.

This section provides 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 introduced as an emergency institution during the first world war and has grown into an organ of great importance



in the co-ordination of policy at the highest level. The secretariat is responsible for the keeping of Cabinet records, for providing information and advice to ministers, and for issuing directives or promulgating the decisions of the Cabinet or the Prime Minister to the departments concerned. It has a military side and a civil side. Attached to the Cabinet Office is the *Central Statistical Office*, which is charged with the collection, analysis and presentation of statistics relating to the national economy.

### **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 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 functions of the Treasury fall under four main headings: finance (sub-divided into home finance and overseas finance), control of expenditure, general civil service establishment matters, and co-ordination of economic policy. Home finance includes taxation policy (though executive responsibility for the collection of revenue lies with the Boards of Inland Revenue and Customs and Excise), the provision of funds for the day-to-day needs of the public services, currency and banking, and the management of the national debt. The Treasury has been heavily occupied with overseas financial questions since the end of the second world war because of the post-war emphasis on the problem of the balance of payments.

Control of expenditure is a matter partly for Government departments and partly for the Treasury, which scrutinises the detailed annual Estimates and exercises a general supervision over departmental expenditure, subject always to the overriding control and authority of Parliament. The Treasury's responsibility in general civil service questions has developed gradually out of the control of expenditure.

The co-ordination of economic policy is a function which the Treasury has acquired since the end of the second world war. It arose from the acceptance by successive Governments of responsibility for maintaining full employment, safeguarding the balance of payments and avoiding inflation.

*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 subordinate legislation when specially instructed, and advises the Government on legal, parliamentary and constitutional questions falling within its special experience.

### **The Admiralty**

The Admiralty Act of 1690 appointed Lords Commissioners to the Board of Admiralty to execute the office of Lord High Admiral. The responsibilities of the Board of Admiralty are, briefly, to build, direct, maintain and administer the Royal Navy within the framework of the Government's naval defence policy. The present Board of Admiralty 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 of Admiralty 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, ensure financial regularity and receive, pay and account for all money administered by the department.

The Admiralty also administers the Royal Greenwich Observatory 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 also to Scotland.

In England and Wales the ministry deals with 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; the prevention of damage by pests; and the supply of welfare foods for mothers and young children. 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.

The ministry is also responsible for the administration of the Royal Botanic Gardens, Kew.

*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 1/1250 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, Geological Survey and Land Registry.

### **The Air Ministry**

The Air Ministry consists of the Air Council, and the four executive departments by which the council is served.

The Air Council, which has administrative control of the Royal Air Force (RAF), comprises eight members (two ministerial, five air force and one civil servant). Its president is the Secretary of State for Air and the other members are responsible to him for specific duties. The departments which serve the Air Council 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, command and staff 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 training and establishments); (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; technical training; 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.

*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 and Manchester, 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 was created by Order in Council in 1959 to combine in one ministry the functions relating to civil aviation and aircraft production which were previously divided between the former ministries of Transport and Civil Aviation and of Supply. The department has also assumed certain of the former Ministry of Supply's 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 aircrew and aircraft maintenance personnel, and research on air navigation. The minister appoints the members of the airline corporations and may give them directions in matters affecting the national interest; he also approves associate agreements between the corporations and the independent air transport companies for the operation of scheduled services.

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 also 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 Colonial Office**

The Colonial Office deals with the affairs of the great majority of the non-self-governing countries of the Commonwealth. At the head of the Colonial Office is



the Secretary of State for the Colonies, who is the minister responsible to Parliament for the general administration of those territories. The main functions of the Colonial Office are to convey to the governments of the dependent territories the views and wishes of the United Kingdom Government on broad matters of policy and to provide them with guidance on a wide range of matters through a staff of professional advisers and with the help of advisory committees composed of men and women eminent in many fields. The department is also responsible for ensuring that the interests of governments and peoples of the dependent territories are safeguarded and promoted, and for undertaking expert service of many kinds, including the allocation of funds for development purposes under the Colonial Development and Welfare Acts and the provision of administrative and professional staff for the public services of the dependent territories. Other functions of the Colonial Office include the care of students from the dependent territories in the United Kingdom, the British Council acting as agent in providing for their general welfare.

The Colonial Office does not directly administer the territories with which it deals. Each of these has its own administration and an increasing measure of autonomy.

### **The Commonwealth Relations Office**

The Commonwealth Relations Office links the United Kingdom Government with the Governments of the other member nations of the Commonwealth (Canada, Australia, New Zealand, the Union of South Africa, India, Pakistan, Ceylon, Ghana, the Federations of Malaya and Nigeria, and Cyprus), with the Federation of Rhodesia and Nyasaland, and with the self-governing colony of Southern Rhodesia.

The duties of the office are: to advise the Secretary of State 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 maintains relations with the Irish Republic (which, although no longer a member of the Commonwealth, is not treated as a foreign country), and he is responsible for the administration of the High Commission Territories (Basutoland, the Bechuanaland Protectorate and Swaziland).

### **The Board of Customs and Excise**

Commissioners to collect the customs and the excise revenues were first appointed by the Long Parliament in 1643 (although after the Restoration the older method of collection through private contractors was revived for a time). The two branches of the revenue remained distinct until 1909, when they were amalgamated under Commissioners 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 was constituted in 1947 under the Ministry of Defence Act, 1946. Its main function is to co-ordinate the policies and requirements of the armed forces in accordance with the general defence policy laid down by the Cabinet. It is also responsible for the administration of the Joint Intelligence Bureau, the Imperial Defence College, the Joint Services Staff College and Amphibious Warfare Headquarters; and it is concerned with 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; and 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 also responsible for the award of State scholarships and certain other 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.

*The Commonwealth Institute.* The institute was founded (as the Imperial Institute) in 1893. Its work is now directed by a board of governors, some of whom are appointed by the Minister of Education and others by the Governments of the member nations of the Commonwealth. The 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 the schools. It also arranges lectures and conferences and provides study and recreational facilities for Commonwealth students. The institute is financially dependent on an endowment fund and on grants from the United Kingdom and other Commonwealth Governments. A new building to house the institute is due to be completed in 1962.

### **The Foreign Office**

The Foreign Office, which is the headquarters of the Foreign Service, first became a separate department of State in 1782. The minister in charge of the Foreign Office, and 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 is primarily of a political nature and ranges from issues of great importance to such matters 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, created in 1919, is responsible for the administration, in England and Wales, of the National Health Service under the National Health Service Acts, and the supervision of the work of local authorities under certain sections of the Public Health Acts and of their services in connection with mental illness, and for the care of the aged, infirm, blind, deaf and other handicapped persons under the National Assistance Act, 1948.

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, and of those living in the Irish Republic; and it has functions relating to food hygiene and welfare foods.

The exercise of the department'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 Home Office was created in 1782. Its head is the Secretary of State for the Home Department (the Home Secretary), who is entrusted with all the responsibilities of national 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; the control and naturalisation of aliens; and general questions and individual cases relating to British nationality and citizenship of the United Kingdom and Colonies.

Particular matters for which the Home Office is responsible, both in connection with its general functions and otherwise, 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 also 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 under the Housing Act, 1936, the minister supervises the administration of the housing statutes and the national housing programme; and his officers keep in close touch with the local 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 responsibilities 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 establishment and work of the development corporations of the new towns, and with the National Parks Commission.

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 required by all other Government departments and supplies general publicity services. It produces and distributes books, pamphlets, magazines, films (including films for television), exhibitions, photographs and other visual material for the home and overseas ministerial departments. In the United Kingdom, it conducts all Government press and poster advertising (except that of the





The chalk downs of Southern England: the South Downs, Sussex.



The Scottish Highlands: Glen Affric.





Pattern of fields in County Down, Northern Ireland.

The coast of South Wales: Three Cliffs Bay and Cefn Bryn, Glamorgan.





National Savings Committee), carries out social surveys, and distributes departmental press notices to the press, the BBC and Independent Television News. For the overseas departments, it supplies British information posts abroad with a daily service of topical information, comment and official news for local circulation and other material for the press and radio, and with a comprehensive reference service, and it arranges tours for official visitors from overseas to enable them to see various aspects of life in Britain. Administratively, the Central Office of Information is responsible to the 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 is also responsible for the valuation of real property for various purposes such as compensation for compulsory purchase, local rates in England and Wales, and estate duty and, from 1st April, 1960, it has assumed responsibility for the collection of tithe redemption annuities.

### **The Ministry of Labour**

The Ministry of Labour (created in 1916 and known between 1939 and 1959 as the Ministry of Labour and National Service), 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 department's principal functions is to help employees to obtain and retain positions suitable to their age and capacity (actual and potential), and to help employers to obtain suitable employees; to this end, it operates a national system of employment exchanges which includes the Professional and Executive Register, the Technical and Scientific Register, in London, and nursing appointments offices, 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 provides the Disablement Resettlement Service which enables 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 is also concerned with labour policy in the international field, with overseas questions concerning 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

and, 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 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, and through his membership of the Rules Committee of the Supreme Court and 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.<sup>1</sup>

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, and 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 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

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

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 these 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 was set up in the seventeenth century to take over the responsibility for carrying letters, which was previously attached to the Crown. The minister at its head is the Postmaster General, and its work is now mainly concerned with the operation of the inland postal, telegraph and telephone services and, in co-operation with other countries and interests, of the overseas postal and telecommunications services. 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.

In addition to its other work, the Post Office undertakes certain banking functions, including the operation of the Post Office Savings Bank, the sale of premium savings bonds and the issue of money orders, and it acts as an agent for many other Government departments in the collection of revenue (e.g., by the sale of broadcast receiving and other licences and by the sale of stamps for National Insurance contributions) and the payment of grants and allowances, such as National Insurance payments, retirement and certain other pensions and family allowances.

The Postmaster General is the minister responsible to Parliament for broad questions of national policy concerning the sound and television broadcasting services. The Post Office provides many line facilities for the British Broadcasting Corporation and the Independent Television Authority.

### **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.

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 departments in court, and giving general advice on the interpretation and application of the law. It also 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.

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) and in that capacity has certain duties connected with the operation of the divorce laws.

### **The Department of Scientific and Industrial Research**

The Department of Scientific and Industrial Research, which is a department of the Privy Council, accounts for its own Vote in the Estimates and is responsible to Parliament through the Minister for Science.

The work of the department covers research in the United Kingdom (except defence research) in all branches of natural science except medicine and atomic energy, and in all industries except agriculture, fisheries and forestry. Its primary functions are to undertake research in the national interest and to meet the requirements of other Government departments; to encourage research and the application of scientific knowledge in industry; and to encourage fundamental research at universities and elsewhere, and the maintenance of an adequate supply of trained research workers for laboratories of all kinds.

### **The Stationery Office**

Her Majesty's Stationery Office was established in 1786. It is the Government's central organisation for the supply of desk stationery, office equipment, office machinery, printed matter, published books and periodicals for British Government departments at home and abroad. It also undertakes printing, duplicating, addressing and distributing services for other departments. The Stationery Office is the Government publisher and is responsible for the sale of Government publications, including Acts of Parliament. The ministerial head of the Stationery Office is the Chancellor of the Exchequer, and questions pertaining to the department asked in the House of Commons are normally answered by the Financial Secretary to the Treasury.

## **The Board of Trade**

The Board of Trade was formally constituted as a Committee of the Privy Council by an Order in Council of 1786, which still provides its constitutional basis. Since 1867, the President of the Board of Trade has been the only effective member of this committee and his authority is, in practice, similar to that of a Secretary of State or other minister of Cabinet rank.

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 (established in 1919 and known between 1953 and 1959 as the Ministry of Transport and Civil Aviation) has powers and duties relating to inland transport and shipping.

As the department responsible for inland transport, the ministry is charged with certain duties relating to railways, inland waterways, roads, bridges and ferries, and the vehicles they carry. The Minister of Transport is the highway authority for trunk roads in England and Wales; he appoints the members of the British Transport Commission and agrees the general lines on which its development programme is drawn up.

The marine side of the ministry's work is concerned with national and international shipping policy; ships, their masters, officers and men; the provision and operation of troopships; safety of life at sea; navigation (including pilotage, lighthouses and other aids to safety in navigation); wreck and salvage; harbours, docks, piers and river conservancy; and the Coastguard Service. The ministry also has responsibilities (which include giving advice to the Government on economic policy), for the merchant shipbuilding industry and for the repair and marine engineering industries.

## **The War Office**

The office of Secretary of State for War was established in 1854. In 1904, the Army Council was constituted on the model of the Board of Admiralty, with the Secretary of State for War as president and a membership of both military and civil personnel.

The War Office is responsible for the administrative control of the Army, including appointments, promotions, postings and payment. Its functions 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; 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.

### **The Ministry of Works**

The main functions of the Ministry of Works are: the provision of office accommodation for Government departments (including public buildings overseas), and of 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 ministry also has responsibilities for the general efficiency of the building, civil engineering and building materials industries and for co-ordinating information about current and future building programmes. For this, regular consultation with the industries at national and regional levels and a comprehensive statistical service are maintained. Encouragement is also given to the industries to make full use of the results of research and development.

## **SCOTLAND**

The first Secretary for Scotland was appointed in 1885 in recognition of the fact that Scotland required a system of administration separate from that of England and Wales. Forty years later, his powers and duties were transferred to a Secretary of State, appointed by the Secretaries of State Act, 1926.

The Secretary of State 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 administrative departments of equal status, each under a Secretary responsible to the Secretary of State for the discharge of the duties of the department. 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, a term also used to describe all Scottish administration for which the Secretary of State is responsible.

The four main Scottish departments are the Department of Agriculture and Fisheries for Scotland, the Scottish Education Department, the Department of Health for Scotland, and the Scottish Home Department. 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 extensive 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, and steamer services in the Highlands and Islands; and it is generally responsible for the rehabilitation of the Highlands.

### **The Scottish Education Department**

The Scottish Education Department is responsible for supervising the administration of the Education (Scotland) Acts, for guiding the development of public education in Scotland in all its forms, for supervising the training of teachers, for issuing teachers' certificates and administering the Teachers' (Superannuation) (Scotland) Regulations, for controlling the distribution of specific Exchequer grants in aid of educational expenditure, and for conducting the annual examination for the Scottish Leaving Certificate. It 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 Department of Health for Scotland**

The Department of Health for Scotland is responsible for the general supervision of the National Health Service in Scotland; for the central administration of the Housing (Scotland) Acts; for the supervision of the house-building programme and for the distribution of grants to local authorities for housing purposes; for the control, under the Town and Country Planning (Scotland) Acts, of the use of land; and for the establishment of new towns under the New Towns Act.

The department also has functions relating to coast and flood protection, and is responsible for supervising the administration of various environmental services, including services connected with water supplies, sewerage, clean air, and clean rivers; for welfare services, e.g., the care of the aged and handicapped persons; and for the medical and surgical treatment of war pensioners in Scotland (including hospital services, and the supply and repair of artificial limbs, surgical appliances and invalid chairs).

### **The Scottish Home Department**

The Scottish Home Department has a number of important functions relating to the maintenance of law and order; it is the department concerned with the police and probation services, criminal justice, legal aid and the services needed by the courts; and it is directly responsible for the administration of prisons and borstal institutions.

The department is also the central authority in Scotland for the fire service and civil defence; for highway administration, including road safety matters (except in

so far as they relate to the construction and use of vehicles); and for legislation concerning shops, theatres, cinemas and licensed premises. Licensed premises in districts in which State management of the liquor trade is in operation are directly maintained by the Home Department.

In addition, the department has general duties in connection with the structure and finance of local authorities, including valuation and rating and the administration of the Exchequer equalisation grants; and it is closely concerned with the provision of electric power and with Scottish economic development generally, in co-operation with the Board of Trade and other United Kingdom departments.

### **Legal Departments**

The Law Officers for Scotland are the Lord Advocate and the Solicitor General. The Lord Advocate is in administrative control of two departments: *The Lord Advocate's Department*, which is responsible for drafting Scottish legislation, providing legal advice on Scottish questions for other departments, and assisting the Scottish Law Officers in certain of their legal duties; and *The Crown Office*, which is the central department responsible, under the Lord Advocate, for the institution of criminal proceedings. The Lord Advocate is also responsible for the work of the public prosecutors—the Procurators Fiscal—who are appointed by him in each sheriff court district.

### **Other 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.

## **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 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 appointed by the Governor. 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 undertakes commercial intelligence work, and is concerned with industrial production and the development of, and financial help for, new and existing industries. 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 trade unions; and the administration of the Assurance Companies Acts and the Industrial Assurance Acts (Northern Ireland), 1924-48.

### **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, water, sewerage and welfare 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 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 and 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 some 358,900<sup>1</sup> 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, 1960, the total number of non-industrial civil servants employed in all departments, at home and overseas, was 637,374<sup>1</sup>; nearly one-third of this total 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 planning 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.

### **Departmental Organisation**

The responsibility for the policy and activities of each department lies with the minister, who is answerable to Parliament for what the civil servants in the department say and do.

The internal organisation of departments is a matter for each department to decide, and it varies according to the volume and nature of the work involved. There are, however, features 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) who is also accounting officer and must appear periodically before the Public Accounts Committee; 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 establishment divisions have their own organisation and methods

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<sup>1</sup> Part-time staffs are included in these, and subsequent, figures—two part-time officers being reckoned as equivalent to one whole-time officer.

(or 'O & M') branch, the members of which act in an advisory capacity as 'efficiency experts'. Many departments also have their own legal advisers or solicitors, and their own information division. The use (wholly or in part) of the standard classes and grades of civil servants, which are described below, is common to most departments.

### 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 numbers 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.

### Classes and Grades

The engagement and position of all civil servants are covered by regulation, agreement and traditional practice—every civil servant being assured of a definite status depending upon the post which he is called upon to fill. There are four main classes of civil servants, each class containing a series of grades. The 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 in April 1960 numbered 2,449, is recruited largely from university graduates.
2. The *Executive Class* (numbering some 68,800 in April 1960), 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 *Clerical Class* (the largest of the main classes, comprising about 185,000 officers including clerical assistants), 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.
4. The *Typing Class* (about 26,500 members), which consists of shorthand typists, copy typists and learner typists.

Among other classes are: the *Professional, Scientific and Technical Classes*, which consist of some 70,800 civil servants with the necessary qualifications (e.g., doctors, lawyers, engineers and research workers) for carrying out the wide range of specialised duties which are now discharged by the Government; the *Inspectorate*, which numbers about 2,600; the *Ancillary Technical Class*, which includes machine and duplicator operators, prison officers, forest workers and others, and numbers some 43,500; the *Messengerial Class* which, in addition to messengers, includes paper keepers, office cleaners and similar workers (in all some 34,000); and the *Minor and Manipulative*

*Class* (with some 202,500 members) which consists entirely of post office workers, e.g., postmen, postal and telegraph officers, telephonists and telegraphists, and their immediate supervisors.

### **The Foreign Service**

Her Majesty's Foreign Service is a separate self-contained service of the Crown, which provides an interchangeable staff for service both at home and at United Kingdom diplomatic missions and consular posts in foreign countries<sup>1</sup> and, in 1960, it numbered some 2,630 established members.

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**

The majority of appointments in the public services of the overseas dependencies are filled by the recruitment of local civil servants through the medium of the local Public Service Commission or the Governor of the territory concerned. Approximately 1,000 officers are recruited each year from the United Kingdom or other Commonwealth countries by the Secretary of State for the Colonies for administrative, scientific or professional appointments, and a similar number by the Crown Agents for Oversea Governments and Administrations. Overseas officers recruited on pensionable terms are appointed as members of Her Majesty's Overseas Civil Service. All members of these services are paid by the Governments of the territories in which they serve.

### **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 four 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.

In addition to holding examinations and conducting interviews, the commission is responsible for issuing a certificate of qualification in respect of each successful candidate, for placing new entrants in departments for which their qualifications are

<sup>1</sup> 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.



appropriate, and for watching the careers of those it has selected in order to ensure that current methods of recruitment are successful and up to date.

Temporary civil servants, who do not qualify for pensions, but are eligible for gratuities, are normally recruited by the department concerned, either directly or with the help of the Ministry of Labour. No qualifying examinations are required for entrance on a temporary basis to 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 for more experienced staff covering technical subjects or broader subjects such as management and supervision.

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. In addition, 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 may gain as wide an experience as possible of civil service activities. Special leave schemes enable a few senior officers, each year, to travel abroad or to undertake research at United Kingdom universities.

Training is co-ordinated by the Training and Education Division of the Treasury, which 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, 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,<sup>1</sup> 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<sup>1</sup> (of which there are about 70).

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<sup>1</sup> 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.

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 established civil 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: (1) the unrestricted, which includes all industrial staff, post-office-counter clerks, postmen, cleaners, messengers, and similar workers, who are free to engage in all kinds of national and local political activities, although, if intending to stand for Parliament, they should resign before nomination day, since a serving civil servant cannot sit in the House of Commons; (2) the intermediate, which includes typists, clerical assistants, clerical officers, and analogous grades, who are free to engage in all political activities, except parliamentary candidature, subject to certain conditions and with the permission of their departments; and (3) the restricted, which includes all civil servants not in the other two groups. This last group is barred from taking part in national political activities, but may seek permission to engage in local political activities, subject to certain conditions.

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

The Government is not concerned with the private political views of its servants, except where there are duties in which secrecy is so vitally important to State security that it does not feel itself justified in employing any one to carry them out whose reliability is in doubt; therefore no one who is known to be a member of, or actively associated with, the Communist Party or with Fascist organisations is employed in connection with such 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 interests; 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.

## 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-laws<sup>1</sup> 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, however, it dates back only 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.

Since local authorities were established, their responsibilities have progressively increased. They were charged with the management of most of the social services that were created or expanded during the first forty years of the present century; and after the second world war, although certain of their functions (e.g., those connected with hospitals and gas and electricity supplies) were transferred to other authorities, they were given additional duties and powers in connection with the general health and welfare services, the care of deprived children, town and country planning, civil defence, and clean air.

The Local Government Act, 1958, and the Local Government and Miscellaneous Financial Provisions (Scotland) Act, 1958, made changes in the local government financial system of Great Britain to give greater independence to local authorities in the spending of money in their own areas; the English Act also provided for some devolution of responsibility for county services to the councils of some of the larger county districts, and established machinery for the review and alteration of local government areas and authorities in England (outside Greater London) and Wales.

### 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 Home Department is generally responsible for 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, which are themselves sub-divided

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<sup>1</sup> Laws of local application which must be approved by the appropriate minister.



into parishes (except in Northern Ireland). Each of these divisions is administered by a different kind of local authority, as follows:

*England and Wales*<sup>1</sup>

county councils (61)	rural district councils (474) <sup>2</sup>
county borough councils (83)	parish councils (some 7,500) or
non-county borough councils (318)	parish meetings (some 3,300).
urban district councils (564)	

*Northern Ireland*

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

*Scotland*

The local authorities in Scotland are:

- 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 of Councils*

Local councils comprise a number of 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 Convenor; and in the burghs, the Provost or Lord Provost.

*Local Government Commissions*

Local authority areas, even when administered by the same type of local council, show great variations in density of population and territorial size. This diversity has tended to increase during recent decades, and, as a result, two Local Government Commissions have been established to review the general county and county borough pattern in England (outside the Greater London area) and in Wales respectively, and, in special review areas (Tyneside, West Yorkshire, South-East Lancashire, Merseyside and the West Midlands) the district pattern and the distribution of functions as well. The commissioners are required to make recommendations for such changes in the pattern as may appear to them desirable after investigating the circumstances of local

<sup>1</sup> Excluding the county of London.

<sup>2</sup> Including the Isles of Scilly.

government in each area under review, and after consulting the relevant local authorities and other interested bodies and persons. The final proposals of the commissioners may be given effect by ministerial order, with or without modification. Their recommendations (and any ministerial order) are to be submitted to Parliament.

The system and the working of local government in the Greater London area are being examined by a Royal Commission set up by Royal Warrant in 1957 to recommend whether any, and if so what, changes in the local government structure and the distribution of local government functions in the area, or any part of it, would secure more effective and convenient local government.

### **Functions and Services**

It is the primary duty of every local authority to provide and administer such environmental and social services as it may be required to provide and administer by an Act of Parliament. 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 and Northern Ireland, county borough councils are all-purpose authorities, while both county councils and county district councils have particular functions allotted to them, which they exercise independently to a considerable extent, although (except in Northern Ireland) 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.

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 are administered by the LCC, while those that can be locally managed are 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, e.g., education, are administered by the LCC.

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.

The services provided by local authorities are generally classified under three heads—environmental, protective and personal.

*Environmental Services* are designed to secure and maintain satisfactory standards in the citizens' surroundings. The majority are public health and sanitary services administered in England and Wales by the county, county district, or parish councils (in London by the metropolitan borough councils), in Northern Ireland by the county, county borough, borough and district councils, and in Scotland by the county and town councils, e.g., the inspection and abatement of nuisances, drainage, sewerage, street cleansing, refuse collection and disposal, the supervision of water supplies, measures for ensuring food hygiene and for preventing air pollution, for litter control, and rodent control, and the provision of baths and washhouses. There are also the services for bridge and highway construction

and maintenance, for street lighting, public safety on the highways, and the provision of amenities such as parks and recreation grounds, which are generally administered by the same authorities and also, in part, by district councils in Scotland. Town and country planning is carried out in England and Wales by the county councils, which may delegate certain of their powers to county district councils, and in Scotland by county councils and the town councils of large burghs. The all-purpose authorities (county borough councils in England and Wales and town councils in the counties of cities in Scotland) usually provide and administer all their own environmental services.

*Protective Services* include the fire service, the civil defence service and the police. The fire service is administered throughout England and Wales by the county borough councils and the county councils, or by joint authorities (or joint committees) set up by such councils. In Scotland, the fire service is administered by eleven fire authorities: the town council of Glasgow and ten joint committees of the councils of counties and large burghs. Responsibility for organising local divisions of the Civil Defence Corps in England and Wales is vested in the county and county borough councils (including the LCC), a few county district councils, the London metropolitan borough councils and the Common Council of the City of London; and in Scotland in the town councils of cities and large burghs and county councils. The police service is administered by standing joint committees of county councillors and magistrates in the counties of England and Wales, by watch committees in the county boroughs, or by committees consisting of representatives of the constituent authorities in the case of combined police districts. In London, the Court of Common Council has jurisdiction over the police force in the area of the City and the Home Secretary is the police authority for the metropolitan police district. The police authorities in Scotland are the county councils, the town councils of certain large burghs, or joint boards for combined forces. In Northern Ireland, the police and civil defence services are administered directly by the Ministry of Home Affairs, and the fire services (except in the county borough of Belfast) are the responsibility of a separate statutory authority.

*Personal Services* are intended to promote the well-being of individual citizens. The type of authority concerned depends on the nature of the services, which range from health services, education, and housing to the provision of entertainments. The 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 supervision of the midwifery service; the provision of health visitors and home nursing facilities; measures for the prevention of illness and the after-care 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.

Local authorities engage in *trading services*, e.g., passenger transport, water supply, and harbour, dock and pier services, but to a lesser extent than in the past.

### Local Authority Elections

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 and 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, 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 a proposer (but no assenter) 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 the larger 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.

### **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 thousand 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.

### **Officers and Employees**

Over one million people (including teachers, transport staff and building workers) are employed in local government service in Great Britain. Certain posts, e.g., the clerk, the treasurer, and the medical officer of health, are compulsory in almost all

councils, but, apart from these, councils are free to fill such other posts as they deem necessary for carrying out their work. 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.

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**

Total local authority expenditure on current and capital account amounts annually to over £2,000 million. 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 more than half the net expenditure by local authorities. The largest single grant is the general grant which is paid in aid of local revenues generally, 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 general grant replaces specific grants which were previously paid for education, health and welfare services, town planning, fire services, child care, road safety, police traffic patrol, physical training and recreation, and a few other services. The total sum of the general 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 objective factors, such as size and distribution of population, and numbers of school children. In fixing the total 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 general economic condition of the country, 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 of such magnitude that it is felt that it ought not to fall entirely on local authorities, the ministers 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 reasonable standards in the provision of the relevant services in comparison with the standards achieved in other areas.

Other Government grants are: percentage grants, of which the two principal examples are those for the police service and highways; unit grants, e.g., 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, e.g., 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 in a local authority area 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. There are certain statutory reliefs from rate liability, notably for agricultural land and buildings, which are entirely exempt; for industrial and freight transport premises, which are rated at 50 per cent of the net annual value; and for such buildings as shops and offices, the rateable values of which are generally 80 per cent of their net annual value.

Valuation for rating is undertaken by the valuation officers of the Board of Inland Revenue; appeals 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 has hitherto been based primarily on the annual rent actually payable; valuation on a basis similar to that in England and Wales will come into force in 1961. 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.

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. 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 (to a more limited extent than formerly) from the Public Works Loan Board which is financed by the Exchequer and from which slightly more favourable rates of interest can be obtained.

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.

### **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**

In 1960, there were 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 to increase 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, qualifications for appointment, promotion, and pensions in local fire brigades, and their approval is necessary for certain reductions on 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. In 1960, there were 12 inspectors and assistant inspectors and one woman staff officer in England and Wales, and one inspector and one assistant inspector in Scotland.

### **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. While details of establishment schemes vary considerably according to the fire risks in the area concerned, there are, in the whole of England and Wales approximately 20,000 whole-time and 14,000 part-time firemen, operating almost 4,000 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 2,050 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 officer (firemaster in Scotland) to be the head administrative and executive officer for the fire services in its area. The appointment must be ratified by the Home Secretary or by the Secretary of State for Scotland. The chief 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 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 175,000, including those for chimney fires. In addition, there is an annual average of 25,000 special service calls for such purposes as rescuing persons and animals trapped in dangerous situations, dealing with crashed aircraft, and pumping and salvage operations. During the past ten years, some 2,500 lives have been saved through fire service operations. In Scotland, the average number of fire calls a year, including those for chimney fires, is 24,750; the average number of special services is 1,050, and the number of persons rescued through fire service operations during the past ten years was 1,145.

### **Firemen**

Only a little over half of the total number of firemen are whole-time. The part-time firemen include retained firemen who, in return for a small retaining fee, undertake to attend fires if called upon; volunteer firemen, who receive no remuneration; and auxiliary firemen, who, as part of the local authority civil defence organisation, are enrolled as members of individual fire brigades, and whose activities in peace time are restricted to such duties as are desirable for training. In addition, there are the fire-fighting organisations with specialised functions, e.g., those maintained by the War Office, Air Ministry, Ministry of Aviation and Ministry of Transport, and by some large industrial and commercial concerns.

Ranks in the fire services (for men) are chief officer, assistant chief officer (fire-master 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, administrative duties and duties of a clerical nature, 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 and theoretical instruction in a number of subjects, including physics, chemistry, hydraulics, building construction, industrial processes and the law, 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 Department. Courses for officers and potential officers of fire authority brigades are held at the Fire Service College, at Wotton House, near Dorking, Surrey, which is maintained by the Home Office and the Scottish Home Department as the central training institution for the fire services. The college also provides courses for fire prevention officers.

### **Finance**

Each fire authority submits to the Home Secretary or to the Secretary of State for Scotland an annual statement showing its expenditure and income in connection with the provision of fire services during the preceding year; the local authorities bear the cost of maintaining the services, the Exchequer contribution being included in the general grant.

### **Research**

Research into all aspects of fire prevention and fire-fighting is directed mainly by the Joint Fire Research Organisation; the cost of its work is shared equally between

the Government and the Fire Offices' Committee (a committee of the insurance companies dealing in fire risks). The organisation controls a fire research station at which practical tests are carried out.

### 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.

The Belfast Fire Brigade maintains five whole-time stations and has an establishment of 190 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 94 whole-time officers and men and 650 part-time firemen, manning 69 appliances.

#### Ranks of Firemen

The ranks of firemen in Northern Ireland are: for the Northern Ireland Fire Authority—fire force commander, divisional officer, assistant divisional officer, senior company officer, company officer, section leader (retained brigades only), leading fireman and fireman; and for the Belfast Fire Brigade—chief officer, deputy chief officer, divisional officer, assistant divisional officer, station officer, sub-officer, leading fireman and fireman.

#### Finance

The Fire Services Acts (Northern Ireland), 1947-56, provide 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.

# III. LAW AND ORDER

## THE LAW

The maintenance of public order in the United Kingdom is effected, generally speaking, by two agencies—the judiciary and the police. Both are concerned in different ways with the obedience of the citizen to the law.

Law is said to be based on the concepts of order and compulsion. In the legal sense, it has been defined as any rule which will be enforced by the courts; as it applies to a country, it is usually understood as the set of rules by which the citizens of that country will expect to regulate their conduct in relation to their fellow citizens and to the State.

There is no written code of law in the United Kingdom. The question whether a particular rule is recognised as law is determined, where possible, by consideration of the authorities—statutes, common law, and the opinions of legal writers of established reputation (although these are not law until accepted as such by the courts). If none of these authorities exist, the judge uses a process of analogy: that is to say, he bases his decision in a case on its similarity to a previous case in which judgment has already been given.

Common law originated in the customs of the realm, and has been built up by the decisions of the courts. A supplementary system of law, known as 'equity', came into being during the Middle Ages to temper justice with mercy where conscience was opposed to the rigours of the law, and to provide and enforce more effective protection for existing legal rights; later, it 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. Statute law includes Acts of Parliament and delegated or subordinate legislation made under powers conferred by Parliament.

The Treaty of Union between England and Scotland in 1707 included the provision that Scotland should retain its own system of law, and differences in law and legal procedure between Scotland and the rest of the United Kingdom remain. The Scottish common law, unlike its English counterpart, has, in general, preferred broad principles to strict adherence to judicial precedent, and has often adopted and adapted ideas from other legal codes; and there are separate Scottish statutes in many fields of legislation. Nevertheless, the very close links that have been forged between England and Scotland since 1707, and the steady increase in the number of Acts of Parliament that apply uniformly throughout the United Kingdom, have narrowed the gap between the legal systems of the two countries until the points of similarity have become as numerous as the differences, and there is now a considerable volume of law common to both countries.

The leading branches of the law in the United Kingdom, as in most other countries, are civil law and criminal law. The purpose of civil law is to uphold private rights, and to redress private wrongs which do not involve moral guilt. Criminal law deals with wrongs considered injurious to the community, and consequently punishable by the State.



## JUDICIAL PROCEDURE

English law provides that if anyone is arrested or detained otherwise than upon lawful grounds<sup>1</sup> he 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. If no cause can be shown, the prisoner must be released forthwith, and thereafter he has the right to sue the person who detained him for assault or false imprisonment. In England and Wales, the writ of *habeas corpus* may be granted by the Queen's Bench Divisional Court or by any judge of the High Court; in Scotland, the High Court of Justiciary has a similar power to release persons unlawfully detained.

Arrest to enforce a court order in civil proceedings can be effected only on a warrant of the court. In criminal cases, arrest may be effected on a warrant issued by a judicial authority on information laid before it. In certain cases, it may also be effected without warrant; but in these circumstances, the arrest is not lawful if the person making it had no reasonable grounds for his action, and civil or criminal proceedings may then be taken by the person aggrieved.

Anyone arrested on a criminal charge must be informed at once of the reason for his arrest (except when he is caught in the act) and brought speedily for trial before a magistrates' court, sitting in public. When the arrest is without warrant, 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. Unless the offence is serious, bail must be granted if the defendant cannot be brought before the court within a day. Magistrates also have discretion to grant bail, and this discretion is liberally exercised according to well-established principles. If bail is refused by the magistrates, the defendant is always entitled (unless charged with treason or murder) to apply to the High Court for bail, and he must be informed of this right.

### Prosecutions

In England and Wales, there is, in general, no restriction on the right to institute proceedings; in fact, most criminal prosecutions are initiated and conducted by the police representing the public, but a private citizen may institute proceedings if he wishes to do so. In some cases, the consent of the Attorney General or the Director of Public Prosecutions or, less frequently, a Government department is required before prosecution can be initiated. The Director of Public Prosecutions is also concerned with prosecutions in all the more serious classes of indictable offence. There are certain categories of crime which the police are required to report to him in order that he may decide whether or not he proposes to conduct the prosecution personally, and he may take up any case which appears to him to need his intervention. He is obliged to prosecute in cases of murder, and in cases referred to him by a Government department provided that he considers such cases to justify the institution of criminal proceedings; and it is his duty to give advice to chief constables and other chief officers of police.

In courts where there is a good deal of work done by the Director of Public Prosecutions, for example, the Central Criminal Court in London, there is a panel of counsel appointed by the Attorney General, known as Treasury Counsel, who are retained to prosecute in the Director's cases.

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<sup>1</sup> These are: in pursuance of criminal justice; for civil debt (this is now permitted only where a person of proved capacity to pay refuses to do so); for contempt of a superior court or of either House of Parliament; detention of persons found to be insane or mentally defective; detention of children by their parents or guardians.

The cases handled by the Director of Public Prosecutions amount to about 8 per cent of the total number of prosecutions for indictable offences. Another 4 per cent is accounted for by prosecutions brought by public bodies who handle their own cases, and by those brought by private individuals. The remaining 88 per cent are police prosecutions.

In Scotland, private prosecutions or prosecutions by the police are virtually excluded. All prosecutions are instituted in the public interest by the Lord Advocate or his officers or by prosecutors appointed by the burgh or justice of the peace courts.

### *Process of Criminal Prosecutions*

Criminal law presumes the innocence of the accused until his guilt has been conclusively proved by the prosecution. Therefore, it has long been the custom to deny to the prosecution any advantage, apparent or real, over the defence. The Judges' Rules,<sup>1</sup> formulated for England and Wales in 1912, forbid anything in the nature of cross-examination by the police once they have actually charged a person with a crime, and require that if such a person wishes to make a voluntary statement, he must first be cautioned that anything he says may be used in evidence; while in Scotland, although there is no exact replica of the Judges' Rules, the courts will reject as evidence statements made by the accused, unless they are satisfied that these statements have been fairly obtained. Private interrogation before an examining magistrate prior to public trial forms no part of criminal proceedings.

Every accused person has the right to employ a legal adviser for the conduct of his defence, and if he cannot afford to pay for legal representation, he may apply for legal aid at the public expense (see p. 93). This is granted at the discretion of the court, except in the case of a person charged with murder, who must be granted legal aid if his means are insufficient. Anyone remanded in custody may be visited in prison by his legal adviser, so that his case may be properly prepared. During the preparation of the case, counsel for the defence has the right to compel the prosecution to disclose all the documents in its possession which have a bearing on the case, and he may require that these documents be produced at the trial, if such a procedure would seem advantageous to the defence. 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 witnesses on his own account, who, if they will not attend the trial of their own free will, may be 'subpœnaed' 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 a prisoner, 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 being tried.

### **The Jury System**

Generally speaking, all the more serious crimes, i.e. crimes known as indictable offences because a formal written accusation or 'indictment' is required for their prosecution, must be tried in a superior court before a jury. In English law, however, certain specified indictable offences may be dealt with instead at a magistrates' court 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.

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<sup>1</sup> These Rules do not have the force of law, but they carry great weight.

A jury consists of twelve persons duly summoned in pursuance of a precept from the court. Most property owners and ratepayers (men and women alike) are liable to be summoned for jury service if they are British subjects and are between the ages of 21 and 60, unless they are disqualified as, for example, having been convicted of an infamous crime. Members of certain professions are, however, exempt from service, and no person can be summoned to serve on any jury more than once in any one year unless all the jurors on the list have already been summoned to serve during that same year.

In trials by jury it is, broadly speaking, the duty of the judge to determine questions of law (including questions as to the admissibility of the evidence), 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 judge sums up the evidence for the benefit of the jury, but he never accompanies it when its members retire to consider their verdict. The verdict of a jury must be unanimous; if its members are unable to reach agreement, the case must be retried before a new jury. Members of the jury are completely independent of both the judiciary and the executive. Moreover, although both the prosecution and the defence have the right, before the trial opens, to object to any member of the jury on the ground of his lack of impartiality, once all the members have been sworn in they are free from interference of any kind, even if, as sometimes happens, they bring in a verdict in apparent contradiction to the summing up of the judge. It is an offence to assault, threaten or attempt to corrupt a juror either before or during a trial.

Scottish legal procedure differs from the foregoing in a number of respects: notably, the verdict may be by a bare majority of the jury (which in Scotland consists of fifteen persons in criminal cases and twelve in civil cases) and, in addition to 'guilty' or 'not guilty', may also be given as 'not proven'. This verdict (which does not exist in English law) involves acquittal in the same way as 'not guilty'.

In England and Wales, either party may insist on trial by jury in civil courts in cases involving claims for defamation, malicious prosecution, false imprisonment, seduction, or breach of promise to marry, and a person charged with fraud may also claim the right. Other civil cases are tried by jury only if the court, in its discretion, so orders on the application of one or both parties to the dispute. Where there is no jury, the trial is by judge alone. In the trial of a civil action, the jury is responsible for deciding questions of fact (as in the trial of criminal cases) and also the amount of damages to be awarded to the injured party.

Jury trial in civil cases is a more commonly used procedure in Scotland<sup>1</sup> than in England and the procedure in civil courts in Scotland differs in some respects from that in English courts.

At certain inquests at coroners' courts (see p. 89) in England and Wales, 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 not fewer than seven and not more than 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'.

### **Law of Evidence**

Evidence in the legal sense is all the legal means, exclusive of mere argument, which tend to prove or disprove any matter of fact, the truth of which is submitted

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<sup>1</sup> It is recommended by the Strachan Committee (which was appointed by the Secretary of State for Scotland in 1957 and issued its report in 1959) that civil jury trials should continue in the Court of Session but should be abolished in sheriff courts.



to judicial investigation. In general, the law relating to it is the same in criminal and in civil trials; but, because of the peculiar nature of a criminal trial—the gravity of the issue, the extent to which the public interest is involved and the penalty to which the prisoner may be subjected—some of the rules, as they relate to the proof of the case against the prisoner, are applied with greater rigour and severity in the course of criminal than in the course of civil proceedings. Thus, hearsay evidence (oral or written statements made by persons not called as witnesses) is not as a rule admitted; and although the uncorroborated evidence of one witness is, as a matter of English law, sufficient, a conviction solely on the evidence of an accomplice (or accomplices) is, in practice, never allowed, unless the judge has warned the jury of the dangers of convicting without corroboration. In Scotland, apart from a few statutory 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.

Admissions by an accused person before trial are accepted as evidence in a criminal trial only if they were made voluntarily without fear of prejudice or hope of advantage. The previous history of the accused may only be used against him if he has either expressly set up his own virtuous character as an argument for his innocence, or attacked a witness or the prosecutor, or given evidence against a co-defendant, in which case, should he choose to give evidence himself, he may be asked questions about his own previous convictions, provided that they are relevant and not too remote in time.

### THE COURTS

The courts that apply the law in the United Kingdom are, broadly speaking, divided into civil and criminal courts. No hard and fast line can be drawn since the distinction is a comparatively modern one and, in fact, quite a number of civil cases are heard in criminal courts, while occasionally a criminal case may be heard in what is primarily a civil court.

#### **Civil Courts in England and Wales**

The more important of the civil courts in England and Wales are:

##### *County Courts*

County courts are so arranged that there is no part of the country more than a reasonable distance from one of them. They deal with the great bulk of civil litigation; over a million cases are entered in them every year, although comparatively few ever reach the stage of trial, many being settled out of court. County courts are presided over by a paid judge, who almost always sits alone, although he may sit with a jury. There are 74 county court judges now in office.

Most of the county courts (of which there are nearly 400) do not sit continuously, so that one judge can preside over several courts. However, if pressure of business is so great as to cause delays in the administration of justice in any district, 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.

The ordinary jurisdiction of the county courts includes all civil actions where the amount claimed is less 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 by consent of the parties, or may be transferred to the High Court. In certain classes of case these limits do not apply: these include rent restriction cases and certain

cases under the Landlord and Tenant Act, 1954, and the Hire Purchase Act, 1938. Other 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 comparatively well used.

### *The High Court of Justice*

The High Court of Justice forms part of the Supreme Court of Judicature, which largely took its present form in 1873. It is composed of the High Court and the Court of Appeal.

The High Court sits in three divisions: the Queen's Bench Division, the Chancery Division, and the Probate, Divorce and Admiralty Division. These divisions derive from the old courts of the same names which existed before 1873, and cases are distributed between them as tradition and convenience dictate.

The Queen's Bench Division is staffed by the Lord Chief Justice and 27 puisne judges, i.e. judges without special office of their own. The work of the division includes actions for damages and for debt, commercial cases and actions for the recovery of revenue; the same judges also try criminal cases on assizes.

The nominal head of the Chancery Division is the Lord Chancellor; the work of the division is done by six puisne judges who remain in London all the time. The jurisdiction of the Chancery Division derives from the equity system and its work covers actions for the administration of the estates of deceased persons, partnership actions, actions connected with trusts and mortgages, some tax cases, the care of infants' estates, and company and bankruptcy matters.

The Probate, Divorce and Admiralty Division deals, as its name implies, with the proof of wills; with Admiralty and shipping cases; and with divorce cases, heard either before High Court judges or before specially appointed divorce commissioners—often county court judges.

### *Appellate Courts*

There are two appellate courts in civil law actions—the Court of Appeal, which is part of the Supreme Court of Judicature, and the House of Lords.

There are several *ex officio* members of the Court of Appeal, but its effective head is a judge called the Master of the Rolls, who is assisted by eight Lords Justices of Appeal. Appeals lie to the Court of Appeal from the county courts, the Mayor's and City of London Court and all divisions of the High Court. The Court of Appeal generally sits in three divisions, each of three judges.

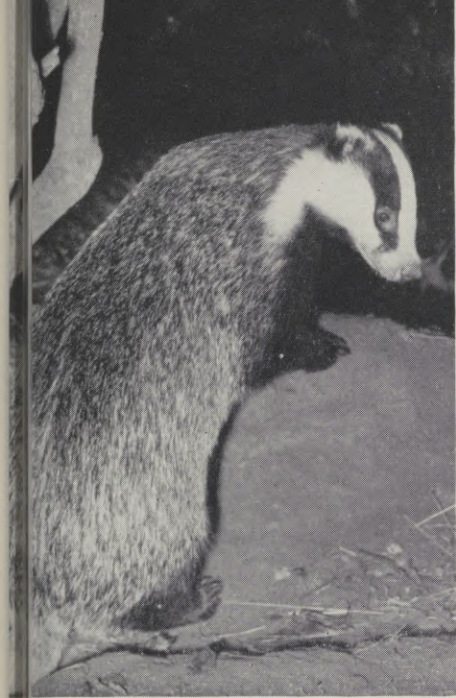
From the Court of Appeal, a further appeal is possible to the House of Lords, with the leave of the House of Lords or of the Court of Appeal. Such appeals are usually heard by five of the nine Lords of Appeal in Ordinary, who are paid professional judges with peerages for life. In addition, the Lord Chancellor and any peers who have held high judicial office are entitled to sit. The House of Lords is the supreme court of appeal in civil cases in the whole of the United Kingdom.

## **Civil Courts in Scotland**

### *Sheriff Courts*

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. Scotland





sow badger by her sett.



The fox is found throughout Britain.



Hedgehogs are nocturnal animals.



Otters live by rivers and streams.



The red squirrel is a woodland creature.



Red deer live in the Scottish Highlands and on Exmoor.





Judges leaving Westminster Abbey after the annual service for all connected with the law.



is divided into 12 sheriffdoms, each provided with a sheriff and a number of sheriffs-substitute. The work of the sheriff court is normally done by a sheriff-substitute, against whose judgment an appeal may be made to the sheriff or directly to the Court of Session.

Minor civil matters (actions not exceeding £5 in value) may be tried by justices of the peace.

#### *The Court of Session*

The Court of Session is the supreme civil court in Scotland. It was established in 1532 and consists of 15 judges. The court is divided into two parts—the Inner House, which is mainly an appeal court, and the Outer House, a court of first instance, where, *inter alia*, all actions for divorce are taken. 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.

### **Criminal Courts in England and Wales**

The criminal courts in England and Wales include:

#### *Petty Sessional or Magistrates' Courts*

Magistrates' courts are courts of summary jurisdiction where persons accused of all kinds of minor offences and a large number of the less serious indictable offences may be tried without a jury. Over 97 per cent of all persons convicted are convicted at magistrates' courts. These courts are also used for committal proceedings, i.e. the public conduct, by magistrates, of preliminary inquiries into indictable offences to determine whether or not an accused person should be committed for trial in a higher court. The average time which elapses between committal for trial by magistrates and the start of trial in a higher court is about five weeks.

The majority of magistrates' courts consist of not fewer than two and not more than seven unpaid 'lay' magistrates or justices of the peace, who are appointed, in each county and for each borough which has its own commission of the peace, by the Lord Chancellor, who is advised as to a county by the Lord Lieutenant with the assistance of an advisory committee, and as to boroughs by separate advisory committees. There are also a few persons who are authorised by statute to act as justices, by virtue of holding some other public office, e.g., mayors of county and non-county boroughs and chairmen of county councils.

In central London, most of the courts consist of metropolitan stipendiary (paid) magistrates sitting alone. There are, at present, 29 such magistrates and the Lord Chancellor has power to appoint additional acting metropolitan magistrates for limited periods when the number of cases to be tried is exceptionally high. Some of the larger towns also have stipendiary magistrates.

*Juvenile Courts* in England and Wales are specially constituted magistrates' courts which deal with young people under 17 years of age who are charged with any offence except homicide, or are brought before the courts as being in need of care or protection or beyond control, or as persistent truants. Juvenile courts also deal with most applications for the adoption of children.

Outside the London magistrates' courts area, the justices for each petty sessional division elect from their number a panel of justices specially qualified to deal with juvenile cases. The panel for the London area is appointed by the Home Secretary.

A juvenile court consists of not more than three justices drawn from the panel and must, except in special circumstances, include a man and a woman. A juvenile court must sit either in a different room or building from that 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.

### *Courts of Quarter Sessions*

There are two different kinds of quarter sessions—county sessions and borough sessions; both are normally held four times a year, although, when necessary, additional sittings may be held.

The jurisdiction of quarter sessions covers all but the most serious indictable offences, but the courts are debarred from trying any crime that carries the death sentence or (subject to certain exceptions) imprisonment for life.

Each of the 65 courts of county quarter sessions is presided over by a legally qualified chairman or deputy chairman, who may or may not draw a salary, sitting with a number of the magistrates of the county. In London, Lancashire and Middlesex, where the courts have continuous sittings, the chairman and deputy chairman usually preside alone. In the 96 boroughs which hold separate quarter sessions, most of the courts, which do not sit continuously, are presided over by a Recorder (usually a part-time judicial officer), who is a salaried barrister, as sole judge. Trial by jury applies at both borough and county sessions.

### *Assizes*

Courts of assize are branches of the High Court of Justice. They are held in the county towns and in certain big cities three times a year, a Queen's Bench judge or a Commissioner of Assize (who may be a barrister commissioned to act as a judge) presiding. The assize judges work on circuits covering England and Wales, and travel from one county town to another in the course of their duties. They can try any indictable offence committed in the county.

At the winter and summer assizes, civil business as well as criminal may be taken, but, except in a few large towns, the autumn assize is confined to criminal cases.

### *Crown Courts*

Crown courts are courts at Liverpool and Manchester which act as courts of assize in and for the West Derby Division of Lancashire and the Salford Division of Lancashire. They also act as courts of quarter sessions for the cities of Liverpool and Manchester. The Crown 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 acts as the court of assize for the criminal business of London, Middlesex and parts of the home counties. The judges include: a judge chosen, in rotation, from the Queen's Bench Division for each monthly session of the court; the Recorder of London; the Common Serjeant; and two additional judges of the Mayor's and City of London Court.



## **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 is heard in the counties by the Appeal Committee of Quarter Sessions, consisting of between three and twelve magistrates, and in the boroughs by the Recorder.

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.

Under the Administration of Justice Act, 1960, 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.

## **Criminal Courts in Scotland**

Criminal prosecutions in Scotland are mainly dealt with in the sheriff courts sitting under summary procedure, i.e. the sheriff without a jury. Minor offences are tried under summary procedure in police courts in burghs and in justice of the peace courts in counties. Any summary court may sit as a juvenile court when hearing charges involving only persons under 17 years of age and, in some areas, there are specially constituted juvenile courts. The sheriff court also sits under solemn procedure, i.e. the sheriff with a jury, to hear the more serious cases prosecuted on indictment.

The most serious cases are taken under solemn procedure in the *High Court of Justiciary*, which is the supreme criminal court of first instance. It consists of the Lord Justice General (who is also the Lord President of the Court of Session), the Lord Justice Clerk and 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. The High Court of Justiciary is also the appeal court from the summary courts and, sitting as a court of criminal appeal, hears appeals in indictment cases. Appeals are heard by three or more judges; there is no further appeal to the House of Lords. There is no counterpart in Scotland to committal proceedings by the committing magistrates, the only public hearing being the trial itself.

## **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 main difference is that all petty sessional cases are dealt with by resident magistrates, who correspond to the stipendiary magistrates of England and Wales. The inferior courts, that is to say the courts where the less serious cases are tried, are administered by the Parliament of Northern Ireland; the administration of the superior courts has been reserved to the United Kingdom Parliament.

## **Coroners' Courts**

Where 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, the death must be reported to 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. When a death is reported to the coroner, it is his duty to inquire how, when, and where the deceased died; he may hold an inquest in court for this purpose, and he must hold an inquest 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 commits 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.

The discovery of gold or silver objects hidden in the soil or in buildings must be reported to a coroner, if the original owner cannot be traced. The coroner then holds an inquest with a jury to inquire whether the objects are 'treasure trove' and who was the finder thereof. If it is decided that the objects are treasure trove, then, though the law is that treasure trove vests in the Crown, the declared finder will either receive them back or be paid their full market value.

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.

### **Ecclesiastical Courts**

The established Church of England has its own ecclesiastical courts, which constitute a graduated hierarchy. They include the Court of the Archdeacon, the consistory court of the bishop of each diocese and the provincial courts of the archbishops of Canterbury and of York.

The ecclesiastical courts, which are still courts in the full sense of the word, have jurisdiction only in matters of purely ecclesiastical concern.

### **Administrative Tribunals**

A number of administrative tribunals exist in various parts of the United Kingdom for the exercise (under chairmen, usually appointed by the Lord Chancellor or the Lord President of the Court of Session in Scotland) of special judicial functions; broadly speaking they fall into three groups :

- (1) those which deal with a class of dispute in which a Government department or public authority is interested, e.g., local valuation courts (rating), general and special commissioners of inland revenue (income tax), and pensions appeal tribunals;
- (2) those which deal with a class of dispute where specialised knowledge or experience on the part of the tribunal is required, e.g., the Lands Tribunal (assessment of values of interest in land), rent tribunals (assessment of fair rents for furnished premises), and the Restrictive Practices Court (investigation of restrictive trading practices); and
- (3) those which enforce professional discipline, e.g., the General Medical Council (doctors), and the Disciplinary Committee of the Law Society (solicitors).

Appeals from certain of these tribunals lie to the appropriate minister (if there is one) or, on a point of law, to the superior courts of England and Wales, Scotland or Northern Ireland, as the case may be.

An advisory Council on Tribunals (appointed jointly by the Lord Chancellor and the Secretary of State for Scotland) exercises general supervision<sup>1</sup> over the tribunals and reports on particular matters, those peculiar to Scotland being dealt with by the Scottish committee of the council.

### **Military Courts**

Appeals lie to the Courts-Martial Appeal 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.

## **THE JUDICIARY**

The judiciary of the United Kingdom is independent. That is to say, it is free to administer the law under the protection of the law without fear or favour. All judges, from those of the House of Lords and the superior courts to stipendiary magistrates and justices of the peace, must not only be, but must appear to be, completely impartial, for it is of fundamental importance that 'justice should not only be done, but should manifestly and undoubtedly be seen to be done'.

The courts of the United Kingdom are the Queen's courts in that 'all jurisdiction of the courts is either indirectly or immediately derived from the Crown', but since the end of the seventeenth century it has been established that the executive cannot disturb or delay the course of common justice, attempt to force the judges to act otherwise than impartially, or use the prerogative powers of the Crown to create courts to administer any system of law other than common law. Judges always have been, and still are, selected from the ranks of practising barristers; and neither their training nor their career is in any way influenced by the State.

The independence of the judiciary *vis-à-vis* the legislature is likewise strictly observed. Originally laid down by the Act of Settlement, 1701, the law governing the matter was re-enacted in the Supreme Court of Judicature (Consolidation) Act, 1925, which provides that all judges of the High Court and the Court of Appeal, with the exception of the Lord Chancellor (who is a member of the Cabinet), shall hold their offices during good behaviour, subject to a power of removal by the Sovereign on an address presented by both Houses of Parliament. During the centuries that have passed 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 duly passed, legally promulgated, and published by the proper authority, 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, or to pass a new Act. It would not be open to it to penalise the judge or to try to influence the court in any other way.

### **Administration of the Judicial System**

There is no Minister of Justice in the United Kingdom. The central responsibility for the administration of the judicial system in England and Wales lies partly with the Lord Chancellor and partly with the Home Secretary. The Prime Minister is also

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<sup>1</sup> Excluding supervision of the professional disciplinary tribunals, with which the ordinary public are not concerned.



concerned in that he is responsible for recommending to the Crown the appointment of the Lords Justices of Appeal and that of the Lords of Appeal in Ordinary.

Judges of the High Court are appointed by the Crown on the recommendation of the Lord Chancellor, who appoints justices of the peace and is also responsible for recommending to the Crown the appointment of county court judges (except in Lancashire where they are nominated by the Chancellor of the Duchy of Lancaster), recorders of boroughs and metropolitan and other stipendiary magistrates. The administrative business of the Supreme Court of Judicature and the appointment of court officials 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, and that he appoints the County Court Rule Committee and has power to alter or disallow the rules made by it. He is also 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.

The Home Secretary is responsible for the general administration of magistrates' courts in England and Wales, except in relation to their judicial functions in which they can be controlled only by the Queen's Bench Division of the High Court. He is also responsible for approving appointments of clerks to justices made by magistrates' courts committees, of which there is one for each county and county borough and for certain non-county boroughs. Magistrates' courts committees exercise local responsibility for the administration of magistrates' courts.

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 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 appointment and removal of justices of the peace and for the staffing and general organisation of the sheriff courts.

### THE LEGAL PROFESSION

The legal profession is divided into two classes of lawyers—barristers (advocates in Scotland) and solicitors. No hard and fast line can be drawn between their work, since there are many barristers who do little advocacy, and there are solicitors who do little else, and who have made considerable reputations for themselves in the courts in which they are permitted to appear; but in general, it may be said that solicitors undertake legal business for lay clients, while barristers advise on legal problems submitted through solicitors and conduct legal proceedings in the higher courts.

A barrister 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 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, the conditions for admission as, and the standing of, advocates and solicitors are much the same as those applying in the case of barristers and solicitors 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. For solicitors, the professional organisation is the Incorporated Law Society of Northern Ireland.

### LEGAL AID

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. These schemes were revised, and extended to include the provision of free legal advice, by the Legal Aid and Advice Act, 1949, and the corresponding Legal Aid (Scotland) Act, 1949, which were introduced both 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. The Acts also provided for the remuneration from public funds of solicitors and barristers acting for persons receiving legal aid.

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. During 1960, however, legal aid in England and Wales was extended to civil cases in county courts and certain local courts of similar standing; and to matrimonial and affiliation proceedings in magistrates' courts and courts of quarter session. Furthermore, certain procedural changes in the operation of the free legal aid system in the criminal courts were brought into force during 1960, including the transfer from local to central government funds of the costs of the defence in criminal cases in which legal aid is granted. 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 whose disposable income does not exceed £250 a year, and whose disposable capital is £125 or less, and contributory legal aid to those whose disposable income does not exceed £700 a year and whose disposable capital is less than £500, or such other figure as may be prescribed. An assisted person is liable for a maximum contribution towards the cost of his case of a third of the sum by which his disposable income exceeds £250 a year.

For the purposes of the legal aid scheme, England and Wales are divided into twelve areas. In each area a committee of solicitors and barristers, known as an area committee,

is responsible for the administration of the scheme. These committees are responsible for setting up local committees to which anyone seeking legal aid may apply. The committees hear the facts, and if they consider that there is a *prima facie* case they give it their support. The person who wishes to bring the action is then allowed to select from a panel a solicitor and, if necessary, a barrister, to conduct his case. Application for legal aid in appellate proceedings is to the area committees. Certain types of action, including libel and slander, are excluded from the scheme.

Legal aid is operated through the Law Society under the general guidance of the Lord Chancellor. 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.

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 for legal aid in Scotland is required to show 'probable cause' and produce in support of his application a statement corroborated according to the requirements of Scottish law.

### **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, and, in case of appeal, under the Criminal Appeal Act, 1907, and the Summary Jurisdiction (Appeals) Act, 1933. Under the Costs in Criminal Cases Act, 1952, the courts are empowered, in the case of an indictable offence, to order the reasonable costs of the defence to be paid out of local funds to the accused if he is discharged by the magistrates' court or acquitted. The Act also gives a magistrates' court power, if it dismisses an information on summary trial, to order such costs as it considers just and reasonable to be paid to the accused by the prosecutor.

Under the legal aid scheme, the scale of fees for counsel in criminal cases in the higher courts ranges between £8 13s. and £64 10s., and for solicitors, between £6 6s. and £78 15s., depending upon the nature of the work done. The maximum fees may be exceeded in difficult cases.

Pending the full implementation of the Legal Aid and Solicitors (Scotland) Act, legal aid in criminal cases is afforded to poor persons in Scotland under the Poor's Roll system, which is administered on a voluntary basis by the legal profession with the help of a grant from Government funds.

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

### **Legal Advice**

Oral advice on legal matters is given by practising solicitors (paid out of the Legal Aid Fund at the rate of £1 for every half-hour) without charge to those having less than £75 capital (excluding the value of their dwelling house, furniture, clothes and the tools of their trade), and for 2s. 6d. to those having an income in the seven days preceding the application of less than £4 10s., after deducting 30s. if married and maintaining a spouse, 25s. for each dependent child, and 30s. for any adult dependant, as well as income tax and national insurance, industrial injury or national health contributions.

## **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 lawbreaker but to prevent him from returning to crime.<sup>1</sup> Research into the causes and prevention of delinquency which, according to statistics, has shown a marked increase since the end of the second world war, is at present being undertaken by a research unit in the Home Office, by a number of universities and by other bodies concerned with these problems. An Institute of Criminology has recently been established at Cambridge University.

### 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; and the Criminal Justice Act, 1948, and the Criminal Justice (Scotland) Act, 1949, provide that no court shall sentence a person under 21 years of age to imprisonment unless they consider that no other method of dealing with him is appropriate. Magistrates' courts in England and Wales 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. A sentence of corrective training of not less than two nor more than four years (seven years in Northern Ireland) may be imposed on offenders of 21 years of age or over if they are convicted of an offence punishable with imprisonment for a term of two years or more and have been convicted of such an offence on at least two previous occasions since attaining the age of 17. Sentences of preventive detention (primarily for the protection of the public) may be imposed on persons of not less than 30 years of age, who are found guilty of offences punishable with imprisonment for a term of two years or more and have been convicted of such offences on at least three previous occasions since attaining the age of 17, and have been sentenced to borstal training, imprisonment or corrective training on at least two of these occasions. A sentence of preventive detention 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 for murder has been confined to those forms of murder (known as 'capital murder') which strike most directly at the maintenance of law and order and the public peace, i.e. murder done in the course of 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

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<sup>1</sup> Some aspects of treatment of offenders were examined in *Penal Practice in a Changing Society*, Cmnd. 645, published in 1959. The treatment of young offenders was further discussed in the report of the Advisory Council on the Treatment of Young Offenders, published later in 1959. A Government decision to implement certain proposals made in these documents will mean the virtual ending of short-term imprisonment for young offenders.

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.

In Northern Ireland the exercise of the prerogative of mercy in all capital 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. In the administration of prisons and borstal institutions the Home Secretary is assisted by the Prison Commission, which is a self-contained department with a separate parliamentary vote.

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.

Responsibility to the Home Secretary for the formation and application of prison policy rests with the Prisons Board, which consists of the five prison commissioners appointed by the Crown on the recommendation of the Home Secretary, and an establishment officer. The Prison Commission also comprises nine assistant commissioners—one with special responsibilities for women's establishments—who are appointed from the governors of prisons and borstals, and are inspectors under the Prison Acts. There are also a number of specialist directors, with appropriate professional and technical staffs.

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 the Prison Commission on the release on licence of the inmates.

The penal system in Scotland is based on principles similar to those applied in England and Wales, and 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: four 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. There are 48 prison establishments in England and Wales, 9 in Scotland, and 2 in Northern Ireland.

Full-time prison officers of all ranks, except chaplains, are permanent civil servants. In 1960, their total number was over 9,500—about 8,500 (of whom 8 per cent were women) in England and Wales; 997 (including 68 women) in Scotland; and 199 (including 20 women) in Northern Ireland.

### **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 to 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. In 1960, there were 85 such courses, covering 26 different trades in the various prisons, and the standard of training was such that just under 65 per cent of entrants passed the external examinations.

### **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 an Advisory Council on the Employment of Prisoners, which was appointed at the end of 1959 by the Home Secretary and the Secretary of State for Scotland. The council is considering the supply of sufficient and suitable work in prisons, the development of new forms of employment for prison inmates and industrial training in prisons, and will advise the Government on these and other matters.

Prison industries in England and Wales are controlled by a member of the Prison Commission who, as the Director of Industries and Stores, has a head office staff of technical officers, supervisors, and industrial managers at the prisons. An Assistant Commissioner for Industries was appointed at the end of 1959 to help carry out any recommendations which the Advisory Council on the Employment of Prisoners may make. In Scotland, prison industries are under the control of the Supervisor of Industries, who is a member of the Scottish Home Department and is assisted by two technical assistants at head office and four industrial managers at the prisons.

Except in local prisons, 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.

All prisoners are entitled to earn a limited amount from the first day of their sentence: in England, Wales, and Scotland, these amounts may be increased for satisfactory output after a specified lapse of time; in Northern Ireland, there is a progressive system of earnings, which is not related to output or 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. The local authorities are reimbursed for the full cost

of their services, and the work in England and Wales is under the organisational control of the Assistant Commissioner for Education in the Prison Commission. Evening institutes have been established; and a wide range of correspondence courses is made 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 under the supervision of the Director of Medical Services at the Prison Commission. The Medical Officer's 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.

Three prisons and one borstal in England and Wales and three prisons and one borstal in Scotland have their own psychiatric clinics (with qualified medical staff, visiting psychotherapists and psychiatric social workers) to which inmates may be transferred if, in the opinion of the relevant medical officer, they would benefit by psychiatric treatment. Elsewhere, prisoners may, if necessary, be sent for treatment to psychiatric hospitals outside the prisons. Arrangements may also be made (for prisoners serving short-term sentences) for appropriate treatment after release. The building of a central psychiatric prison hospital for England and Wales, with accommodation for 300 patients, was begun in 1959.

There is also a psychological service for prisons, 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. There is a chaplain inspector on the Prison Commission.

Welfare is usually the responsibility of the chaplain and welfare officers of local aid societies; there are also 32 full-time prison welfare officers, including three in Scotland.

Prisoners may be visited by their relatives and friends at specified intervals and, in England and Wales, by recognised prison visitors asked to serve in this field by the Prison Commission. The voluntary work of these 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. 96). 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. Specially selected men amongst those sentenced to preventive detention and long-term imprisonment are allowed to work, as free men, in ordinary civilian jobs outside prison during the last six months of their sentence; hostels for this purpose have been established at ten prisons in England where there are reasonable prospects of employment and similar hostels are proposed for more than one Scottish prison. 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, prisoners serving sentences of less than four years 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. For persons discharged from other prisons and from borstals (who are, in general, subject to statutory supervision), after-care in England and Wales is in the hands 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 National Association works through local associates, usually probation officers, and the After-Care Council works through 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 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.<sup>1</sup>

### *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, several remand centres are being established, 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 building of the first remand centre began during 1959.

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 the education and training of young offenders, and children committed to them by the courts as in need of care or protection. These schools may be provided by local authorities, by voluntary organisations concerned with the welfare of children 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 number of approved schools in England and Wales in 1960 was 117. There are 23 approved schools in Scotland, and five (known as training schools) in Northern Ireland.

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

In general, the education given in approved schools follows the lines of that given in ordinary schools, with vocational training for older boys and girls: the emphasis is on character building, and close attention is given to after-care.

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<sup>1</sup> A committee was appointed by the Home Secretary in 1956 to inquire into, and make recommendations, *inter alia*, on the working of the law in England and Wales in respect of young offenders; the constitution, jurisdiction and procedure of juvenile courts; and the remand home, approved school, and approved probation home systems.



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 children 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. Managers of all approved schools are under an obligation to review the progress of each child in their school towards the end of the first year of detention and thereafter at least quarterly, with a view to granting a release on licence as soon as the situation warrants it.

Statutory responsibility for after-care rests on the school managers. A boy or girl on release remains under the care of the managers during the periods of licence and supervision. The period of licence lasts until the expiry of the time for which the boy or girl might have been legally detained in the school. The period of supervision lasts for three years more, or until the boy or girl reaches the age of 21, whichever is the shorter period. Managers are assisted in their after-care work by welfare officers and the probation and child care services.

#### *Attendance Centres*

Thirty-nine attendance centres have been established in England and Wales to deal with boys between the ages of 12 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 not more than twelve hours in all. The activities include a period of instruction in handicrafts, or a lecture (e.g., 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.

An experimental centre for youths aged 17 to 21 has been established 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. Intended as a sharp sanction through a short, but strict, lesson, the treatment is most effective for boys to whom a strictly regulated institutional life is entirely new; the régime is brisk and disciplined, and the highest possible standards are required. Each boy in a detention centre must be alert, punctual and tidy, and emphasis is placed on the inculcation of obedience, cleanliness and good manners. The routine provides a normal working week of 44 hours, including one hour daily devoted to physical training. Boys of compulsory school age receive full-time education, and classes of further education are provided for others in the evenings. In 1960, there were four detention centres in England and Wales<sup>1</sup>—two junior centres for boys over 14 and under 17 years of age, accommodating about 70 and 60 boys respectively, and two senior centres for youths over 17 and under 21 years of age, accommodating about 75 and 65 respectively. In Scotland, the first senior centre was opened in 1960 and the first junior centre will be opened in 1961, each with accommodation for 60 inmates.

<sup>1</sup> The White Paper, *Penal Practice in a Changing Society*, envisaged the need for 12 detention centres in all.

### *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. For youths in England and Wales, there are two borstal allocation centres, 19 training borstals, one correction centre and one recall centre; and there are two open borstals, four closed wings and one recall centre for girls.<sup>1</sup> In Scotland, there are five training borstals and one recall centre for youths and one training borstal for girls; and in Northern Ireland, one training borstal for youths and one for girls. The period of the sentence ranges between a minimum of nine months detention to a maximum of three years, with the total period of control extending to four years (three years in Scotland and Northern Ireland), divided between training in a borstal institution and controlled freedom under statutory supervision. In Scotland, the supervision period is for one year from the date of release from the institution or until the expiration of three years from the date of sentence, whichever is the shorter. 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<sup>2</sup> 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 1960, the total numbers were: 1,545 whole-time and 52 part-time probation officers in England and Wales, 18 whole-time and one part-time in Northern Ireland, and 154 whole-time and 29 part-time in Scotland. 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 all 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,

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<sup>1</sup> These are temporary arrangements until a new closed borstal is built.

<sup>2</sup> A departmental committee to inquire into and make recommendations on all aspects of the probation service was appointed in 1959.



training is provided during the first year of appointment and before the officer is allowed to make probation work his permanent career.

## 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 125 separate, independent police forces in England and Wales, 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 33 forces, including 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 16.

The strength of the regular police force in Great Britain in 1960 was approximately 82,000, including women.

In addition to the regular police forces, there are part-time special constables; the police of certain public services, e.g., the British Transport Commission police, the civil aviation constabulary, the Port of London Authority police and other dock and harbour forces (who have 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 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, of whom there were five (in addition to a woman assistant inspector for the women police) in England and Wales, and one in Scotland in 1960. 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 (Scotland) 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.<sup>1</sup>

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

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 15 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.

### *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. In 1960, the civil staff employed by the police authorities in England and Wales (outside the metropolitan district) was 11.3 per cent of the actual strength of the uniformed force.

### **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 a finger-print bureau and an extensive laboratory service) are, however, made available to other forces, and the universities of Aberdeen, Edinburgh, Glasgow and St. Andrews 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 records<sup>1</sup> and finger-prints, which are available to all police forces of the United Kingdom and to certain foreign forces; (2) the publication of the *Police Gazette*,<sup>2</sup> which contains particulars 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, appointed in 1959, is reviewing the constitutional position of the police throughout Great Britain and the arrangements for administration and control. Particular matters to be considered by the commission are: the constitution and functions of local police authorities; the status and accountability of members of police forces, including chief officers of police; the relationship of the police with the public; and the broad principles which should govern the remuneration of constables.

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

<sup>2</sup> The central Criminal Record Office in Glasgow is responsible for the publication of the Scottish *Police Gazette*.

**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 in 1960 was approximately 2,890, including women. 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 Great Britain police service.

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. In 1960, the Ulster Special Constabulary included some 13,800 part-time members (of whom about 1,600 were mobilised) and just over 100 full-time personnel.

# IV. DEFENCE

## THE DEFENCE SYSTEM

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, 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 the control of all forms of armaments.

### 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, answers to Parliament for all matters of policy common to the three fighting Services—the Royal Navy, the Army and the Royal Air Force. The minister 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 to make available, to assist him in his functions, 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.

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 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. This programme, described in the White Paper as involving 'the biggest change in military policy ever made in normal times' is now being put into effect, and progress during the first three years was reviewed in the White Papers of 1958 (*Cmd. 363*), 1959 (*Cmd. 662*) and 1960 (*Cmd. 952*).

### **The Long-term Plan**

Britain's armed forces, the 1957 White Paper stated, must be able to perform two main tasks:

- (1) 'to play their part with the forces of allied countries in deterring and resisting aggression; and
- (2) 'to defend British colonies and protected territories against local attack, and undertake limited operations in overseas emergencies.

'The aim must be to provide well-equipped forces sufficient to carry out these duties, while making no greater demands than are absolutely necessary upon manpower, money, and other national resources.'

The five-year plan provides for smaller, highly trained, all-regular forces with increased mobility, equipped with the most modern weapons and organised on up-to-

date lines. A central strategic reserve will be maintained together with the means of transport, including airlift, to take it rapidly to the scene of any trouble. Since 'the over-riding principle must be to prevent war rather than prepare for it', the organisation and equipment of the forces are designed to deter resort to war.

The intention is that there should be no further call-up of men for National Service after the end of 1960 and that by the end of 1962 the armed forces should be composed wholly of regulars. The plan involved 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.

### DEFENCE AND THE ECONOMY

After the end of the second world war the strength of the armed forces had been 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 in 1950, the United Kingdom embarked on a programme for building up its defence forces, at a cost estimated originally at £4,700 million over a three-year period.

Between 1950 and 1953 annual defence expenditure was nearly doubled, rising to some £1,400 million in 1952-53, and over the same period the total strength of the active forces increased from just under 700,000 to a peak of about 875,000 at the beginning of 1953. With the end of hostilities in Korea, the programme was revised to meet the changed conditions and to keep it within the limits of the country's economic resources in the face of rising costs. In place of a short rearmament spurt there was substituted the policy of the 'long haul'; the programme was slowed down and spread over a longer period.

Nevertheless, the burden on the economy continued heavy. In 1953, defence absorbed some 10 per cent of Britain's gross national product, compared with 7 per cent in 1950. In 1956, just before the launching of the five-year defence programme, it was still absorbing almost 9 per cent; some 7 per cent of the working population was either in the Services or supporting them, and one-eighth of the output of the metal-using industries—vital to the economy as a main source of exports—was devoted to defence. The very heavy cost of maintaining large British forces abroad (which in 1956 involved expenditure of some £179 million in foreign currency) placed a severe strain on the balance of payments. The total net defence budget in 1956-57 (after allowing for receipts from United States aid under the Mutual Security Programme and German contributions to the cost of British forces stationed in Germany as part of the NATO forces) equalled more than one-third of total central Government current ordinary expenditure.

The effects on the economy of the new defence policy announced in 1957 are now making themselves felt. The proportion of the working population in the Services or supporting them is falling (it is now estimated at just under five per cent), the claims on the metal-using industries are being appreciably reduced (about one-ninth of the output of these industries is at present being devoted to defence), and the call on scientific and engineering skills is easing. Because of the increasing complexity of modern weapons and equipment and the higher cost per man of regular forces, defence expenditure cannot show a reduction proportionate to that in manpower. Defence expenditure in 1960-61 is expected to represent about 7½ per cent of the gross national product, compared with nearly 9 per cent at the beginning of the five-year programme. It still, however, accounts for about a quarter of total central Government ordinary expenditure. In 1959, the expenditure in foreign currency for the maintenance of British forces abroad amounted to some £170 million.

### Current Defence Budget

The gross defence Estimates for 1960-61 totalled £1,629.83 million. After deducting the contribution from the Federal German Government in respect of local costs of British forces in Germany,<sup>1</sup> the Estimate presented to Parliament for 1960-61 was £1,617.83 million.

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

TABLE 5  
DEFENCE ESTIMATES, 1960-61  
£ million

							Gross Total	After deducting receipts from Germany
Admiralty	..	..	..	..	..	..	397.50	397.50
War Office	..	..	..	..	..	..	487.45	477.45
Air Ministry	..	..	..	..	..	..	529.46	527.46
Ministry of Aviation	..	..	..	..	..	..	198.85(a)	198.85(a)
Ministry of Defence	..	..	..	..	..	..	16.57	16.57
							<u>1,629.83</u>	<u>1,617.83</u>

(a) Before adjustment made in *Financial Statement* (1960-61), see p. 405.

The Ministry of Defence Estimate consists mainly of contributions to NATO and other international defence organisations.

Defence expenditure by civil departments in 1960-61 (including loan expenditure by the Post Office) was estimated at £19.57 million.

### MANPOWER

Each of the three fighting Services is at present made up of a combination of voluntarily recruited regulars and men called up for National Service, and each includes women volunteers who form part of the regular forces. An analysis of the strength of the forces in April 1960, with estimates for 1961, is given in Table 6.

TABLE 6  
ACTIVE STRENGTH OF THE ARMED FORCES, 1960-61  
Thousands

	1st April, 1960				1st April, 1961 (estimate)			
	Navy	Army	RAF	Total	Navy	Army	RAF	Total
Regular (male)	93.7	160.2	139.4	393.3	92.7	166.6	142.9	402.2
National Service	0.6	98.1	18.4	117.1	0.3	57.0	13.7	71.0
Women (including nurses)	3.5	6.0	5.7	15.2	3.6	6.5	6.4	16.5
TOTALS	97.8	264.3	163.5	525.6	96.6	230.1	163.0	489.7

Note: Figures for the Navy include the Royal Marines.

In addition, reserve and auxiliary forces with training liability (volunteers and part-time National Service men) totalled 549,700 at 1st April, 1960.

<sup>1</sup> Under an agreement announced in May 1958, the Federal German Republic is to pay £12 million annually for three years towards these costs: 1960-61 will be the last year in which a German contribution will be received.



The planned figures (United Kingdom adult males) for the all-regular armed forces for 1962 are: Royal Navy, 88,000; Army, 165,000 (with a recruiting maximum of about 180,000); Royal Air Force, 135,000. 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 a five-year Service building programme, estimated to cost £90 million.

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 p. 453).

### **National Service**

Compulsory military service in peace time was first introduced in Britain in 1939, shortly before the outbreak of the second world war. Under the National Service Acts, 1948-55, fit male British subjects between the ages of 18 and 26 ordinarily resident in Great Britain are 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 may be granted to students and others undergoing training, and to men who are employed in certain occupations in the national interest (including coalminers, members of the Merchant Navy, secondary school teachers, and those in agricultural employment), for as long as they are engaged in those occupations. Postponement of call-up may also be granted on the grounds of exceptional domestic, business or other hardship. Provision is made for *bona fide* conscientious objectors to be relieved of the obligation for combatant military service. Men called up under the National Service Acts have statutory rights to reinstatement in their former civil employment.

Special arrangements have been made for 1960, the last year of call-up, since the number of men available for call-up is appreciably greater than is required by the Services. Some 50,000 men whose deferment for training or study ended on or after 1st June, 1960, are not being called up. The total of some 60,000 men left available for call-up consists mainly of men whose deferment for training or study expired or was terminated before 1st June, 1960, and men born before 1st October, 1939, who have not been deferred.

The Ministry of Labour calls up the men from civil life for registration and medical examination and posts them to the Services. The Army has been by far the biggest user of National Service men. Sixty-nine per cent of all National Service men were serving in the Army in April 1957, and 84 per cent in April 1960.

### **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 Middle East, the Far East, East and North Africa, and the Caribbean.

Where appropriate, inter-Service commands are being established overseas. In October 1959, a single command was established for all United Kingdom land and air forces in the Arabian Peninsula, Persian Gulf and British Somaliland, together with the naval forces allotted to the Persian Gulf. This was followed in May 1960 by the establishment of a unified command for United Kingdom land and air forces in the Middle East, with permanent representation of the Naval Commander-in-Chief in the Mediterranean at Command Headquarters.

### 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.

<i>Royal Navy</i>	<i>Army</i>	<i>Royal Air Force</i>
Admiral of the Fleet	Field-Marshal	Marshal of the RAF
Admiral	General	Air Chief Marshal
Vice-Admiral	Lieutenant-General	Air Marshal
Rear-Admiral	Major-General	Air Vice-Marshal
Commodore	Brigadier	Air Commodore
Captain	Colonel	Group Captain
Commander	Lieutenant-Colonel	Wing Commander
Lieutenant-Commander	Major	Squadron Leader
Lieutenant	Captain	Flight Lieutenant
Sub-Lieutenant	Lieutenant	Flying Officer
	Second Lieutenant	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) and 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 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 Establishment, Farnborough; 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 Armament Research and Development Establishment, Sevenoaks, Kent; and the Fighting Vehicles Research and Development Establishment, Chobham, Surrey. The Admiralty research establishments (see p. 118), 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 pp. 212-3) 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.

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 Act<sup>1</sup> 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

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<sup>1</sup> 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, which permits, *inter alia*, the exchange, with friendly nations, of both nuclear and non-nuclear parts for weapons and military reactors and of information on nuclear weapon development.



1957, in the Monte Bello Islands and at the weapons proving ground at Maralinga, in the South Australian desert. Britain now has a substantial and growing stockpile of kiloton<sup>1</sup> weapons.

In February 1955, the Government announced its intention to proceed with the development and production 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<sup>2</sup> weapons is now proceeding steadily. The 1958 tests and the exchange of information with the United States<sup>3</sup> have enabled important technical advances to be made in the design of nuclear warheads which will permit a significant increase in the rate of production.

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, outside the range of the missile defence system. In February 1958, the United Kingdom and United States Governments signed an agreement for the provision of launching sites in the United Kingdom for United States *Thor* intermediate-range ballistic missiles; these weapons, which became operational in 1959, would be used with nuclear warheads in time of war only with the agreement of both Governments. The possibilities of mobile launchers (aircraft or submarines) for long-range delivery of nuclear warheads are being investigated. The United Kingdom and United States Governments agreed in June 1960, that if the United States missile *Skybolt* (designed for launching from an aircraft) is successfully developed, and can be fitted to Mark 2 V-bombers, the United Kingdom will place an order with the United States for a number of the missiles (for which the United Kingdom will provide the nuclear war head) and their associated equipment. Research is in progress into defensive measures against ballistic missiles and, under an agreement between the United Kingdom and United States Governments signed in February 1960, a joint Ballistic Missile Early Warning Station is being built at Fylingdales Moor in Yorkshire. The United States is providing the equipment for the station.

## THE FIGHTING SERVICES

### 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, who is a 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

<sup>1</sup> A kiloton weapon is equivalent to one thousand tons or more of high explosive.

<sup>2</sup> A weapon is said to be in the megaton range if it is equivalent to 500,000 tons or more of high explosive.

<sup>3</sup> 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.

and repair of naval aircraft; the Fourth Sea Lord and Vice-Controller, responsible for supplies and transport, 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 defence plans, announced in 1957, envisage a Navy that is smaller than in the past but highly mobile. The aircraft carrier will continue to be the core of the new Navy. 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. Apart from carriers, the number of large ships will be restricted to the minimum. Many ships in reserve, including battleships, are being disposed of.

During 1960 there were 147 ships in the operational Fleet, and a further 42 ships engaged on trials or training. Five carriers, 2 of the 5 cruisers, 22 of the 34 frigates and 37 minesweepers in the operational Fleet had come into service since 1950. In addition, among ships on trials and training or in operational reserve, 2 carriers, 140 minesweepers, 30 coastal craft and 12 destroyers or frigates were also completed during 1950-60.

The modern carriers have, or are being 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, *Hermes*, equipped to carry the latest aircraft now in production for the Fleet Air Arm (see p. 118), joined the Fleet in 1960. The reconstructed *Victorious* joined the Fleet in 1958. The former aircraft carrier *Bulwark* has been converted into a commando carrier and joined the Fleet in this role in January 1960. *Bulwark* is designed to carry a Royal Marine Commando (some 600 men), together with helicopters, landing craft and vehicles.

The first of the three 'Tiger' class cruisers, with fully automatic armament and the latest control equipment, was commissioned in March 1959. The first guided missile ship was launched in 1960, and the construction of the three others on order is well advanced. Trials of the *Seaslug* missile, with which these ships will be equipped, have shown this to be a most effective weapon for the interception of attacking aircraft and a production order has been placed for this weapon. The guided missile destroyers, in common with the majority of other ships, will also carry the shorter-range guided missile *Seacat* for close air defence.

In the five-year period from the beginning of 1956 to the end of 1960, 24 new anti-submarine frigates, 8 new anti-aircraft frigates and 13 new submarines will have joined the Fleet; in the same period, 3 anti-submarine frigates and 14 submarines will have been modernised. Five of the fast long-range submarines of the 'Porpoise' class had been commissioned by the spring of 1960, and by the end of 1960, 8 of this class are expected to be in service.

One of the main purposes of the Reserve Fleet 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 Reserve Fleet is to be smaller than in the past, but is 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 *Dreadnought*, the Navy's first nuclear-propelled submarine, which was launched in 1960. *Dreadnought* incorporates a United States nuclear propulsion unit. An order for the first all-British nuclear submarine is expected to be placed during 1960-61. Fundamental investigations are also in hand for the development of counter-measures against submarines with increased underwater speed. 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.

The close relationship between the United Kingdom and the United States of America is being continued, as well as collaboration with other members of the Commonwealth. Several valuable items of new equipment have been brought into service through the United States Mutual Weapons Development Programme and certain naval projects are being discussed with countries of the Western European Union.

## Commands and Naval Dockyards

The Navy's main home commands are Portsmouth, Plymouth, The Nore, Scotland (Rosyth) and the Commander-in-Chief, Home Fleet. As one of the steps to be taken to ensure that available resources are used to the best advantage, it was announced in February 1958 that the Nore Command (based on Chatham) would be abolished and its functions transferred to other commands by April 1961. A major reorganisation of the Navy's dispositions overseas was also announced in the same month. In the North Atlantic and Mediterranean area, where command arrangements are integrated with the North Atlantic Treaty Organisation, United Kingdom naval forces are to be equipped predominantly for an anti-submarine role, and will consist of two aircraft carriers (with a third in reserve), two cruisers and a number of destroyers, frigates and submarines. In the Far East, the fleet (based on Singapore) will be an all-purpose force of one aircraft carrier, one commando carrier and one cruiser, together with destroyers, frigates and smaller vessels. Small naval forces continue to operate under the Commander-in-Chief, South Atlantic and South America Station, who, when not afloat, flies his flag near Cape Town (by agreement with the South African Government); the Senior Naval Officer, West Indies Station, who flies his pennant afloat; and the Commodore, Arabian Seas and Persian Gulf, who is also Naval Deputy to the Commander, British Forces, Arabian Peninsula.

Naval shore support at home and overseas is also being reorganised in line with the changes in the operational fleet. The reductions include the closing of H.M. Dockyards at Hong Kong, Malta,<sup>1</sup> Sheerness and Portland and of five air stations in the United Kingdom. At home, the dockyards at Portsmouth, Devonport, Chatham and Rosyth will continue to provide the Navy with major supplies and repair facilities. Singapore and Gibraltar are the main dockyards overseas.

## Fleet Air Arm

The Hawker *Sea Hawk* and the de Havilland *Sea Venom* provide the main day and all-weather fighter strengths of the Fleet Air Arm, but they are being succeeded

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<sup>1</sup> The former naval dockyard at Malta was transferred in 1959 to a Maltese company set up by a South Wales ship-repairing firm.



respectively by 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*. The first front line squadron to be equipped with *Scimitars* embarked in the carrier *Victorious* in 1958 and the equipping of other squadrons with this aircraft is proceeding. The first squadron of *Sea Vixens* was commissioned in July 1959. A new strike aircraft to replace the *Wyvern*, the Blackburn *NA.39*, is on order; it has a greater range and speed and is able to carry an atomic bomb.

The anti-submarine turbo-prop Fairey *Gannet* has been in service since 1954 and has now been replaced in that role by helicopters; *Gannets* are still used in the search role. British-built helicopters, the *Whirlwind* and the *Dragonfly*, are in service with the Fleet Air Arm. A more powerful all-weather helicopter, the *Wessex*, has been ordered as a replacement for the *Whirlwind* and will become the Navy's main anti-submarine aircraft.

### 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, Electrical and Supply) are available to young men between the ages of approximately 17 and 19 years. A number of scholarships are awarded to boys between the ages of 15 and 17; these give help with 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 will go to Cambridge, the others reading for an external London degree at the Royal Naval Engineering College, Manadon.

Short service commissions on the Supplementary List for Seaman duties, for air-crew duties with the Fleet Air Arm or in electrical specialisation are available to young men with appropriate qualifications. Doctors, dental surgeons and instructor officers all enter on short service commissions after completing their professional training, and permanent commissions are awarded to them 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 examination and successful candidates are given a special training, part naval and part military, which lasts three and a half years.

The age limits for entry as a rating in the Navy are as follows: seaman, engineering mechanic, electrical mechanic and naval air mechanic branches, 15 to 28 years; communications, naval airman and supply and secretariat branches, 16½ to 28; artificer apprentices, 15 to 17½; sick berth branch, 17½ to 28; artificers (trained), 19½ 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 are given 'refresher' courses at regular intervals during their time in the Service.

### **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).

### **Royal Naval 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. Its object would be to spot mines dropped from aircraft, and to plot and report their positions.

### **Sea Cadet Corps**

The *Sea Cadet Corps*, which is administered by the Navy League in conjunction with the Admiralty, is the oldest pre-Service movement for boys in Britain; its origin dates from the time of the Crimean War in the mid-nineteenth century. Its aim is to give technical training to, and instil naval tradition in, boys under the age of 18 who intend to serve in the Royal and Merchant Navies and also to those sea-minded boys who do not intend to follow a sea career but will, given this knowledge, form a valuable reserve for the Navy. It also aims to provide for the social and educational welfare of the cadets and to develop character and good citizenship.

## **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 war 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,<sup>1</sup> 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 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 four main commands overseas: Middle East Land Forces, 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).

In July 1957, plans were announced for reducing the Royal Armoured Corps, the Royal Artillery, the Royal Engineers and the infantry by a total of 51 regiments or battalions. Corresponding reductions are being made in supporting and administrative units.

Following extensive trials carried out in the British Army of the Rhine, Army field formations are being reorganised on the basis of flexible, self-contained infantry and armoured brigade groups, able to fight, to move and to maintain themselves under minimum direction from headquarters.

As the strengths of overseas garrisons are reduced, increased importance is being attached to a central strategic reserve, based mainly in the United Kingdom, which is being reconstituted on a brigade group basis.

### **Equipment**

By the end of the five-year programme initiated in 1957, the weapons of the second world war will have almost completely disappeared and the Army will be completely rearmed with a new range of weapons, vehicles and other equipment.

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<sup>1</sup> These arms and services include the women's corps.



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 *Mobat* anti-tank gun and light vehicles for the infantry, the *Ferret* scout car and the *Saladin* armoured car in service with the Royal Armoured Corps, and an advanced guided missile anti-tank system and the *Thunderbird* surface-to-air anti-aircraft guided weapon for the Royal Artillery. A production order has been placed for an air-portable howitzer of Italian design.

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 is being equipped with more powerful armament, pending the entry into service of its successor, now under development; 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; a self-propelled gun of increased range and performance and an improved type of armoured personnel carrier are being designed; and the *Skeeter* helicopter is coming into service as a reconnaissance aircraft. Two types of light liaison aircraft, the Canadian *Beaver* and the *P.53I* helicopter, are on order. The Army has been almost completely 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, and troop trials are taking place with the FN general purpose machine gun.

Progress is being made in the introduction of surface-to-surface guided weapons, the first of which are being supplied by the United States. The first guided weapon course was started at the Royal Military College of Science in Berkshire as early as 1950. In 1955, groups of Army instructors began to receive training in the United States in the use of the *Corporal* guided missile; training in Britain is now given at the School of Artillery at Larkhill. Two artillery regiments have been equipped with the *Corporal*, and one of the regiments has joined the British Army of the Rhine (BAOR); the other unit will also join BAOR on completion of its training. A further artillery regiment is being equipped with the United States *Honest John* missile. Two heavy anti-aircraft regiments are being equipped with the *Thunderbird* surface-to-air missile. The Australian *Malkara* air-portable anti-tank guided weapon is on order. Short-range nuclear weapons are also being developed for the Army.

### **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. Cadets may enter Sandhurst direct from school or after they have enlisted in the Army or been called up for National Service. 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 Engineers.

A small number of schoolboys are selected to take engineering or science degrees at the Royal Military College of Science as National Service officers and thereafter to be granted regular commissions. Regular commissions may also be granted to other 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. Young men suitable for short service commissions are now sent direct to the Officer Cadet School instead of, as hitherto, having to serve for a period in 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 leader 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-commissioned 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 Army Emergency Reserve and the Territorial Army, will have an increasingly important part to play.

The *Territorial Army* consists of volunteer officers and other ranks (including women), National Service officers and men carrying out their statutory obligation of three and a half years' part-time service after completing their whole-time service with the Army, and the Territorial Army Reserve of Officers. With the end of National Service it will become a wholly volunteer force. 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 *Army Emergency Reserve* has as its main function to provide essential communications and the technical and administrative services required on mobilisation by both the Regular and the Territorial Armies. 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.

### **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 Middle East Air Force (headquarters in Cyprus), the Far East Air Force (headquarters at Changi, Singapore), Royal Air Force, Germany (Second Tactical Air Force, stationed in Germany as part of Britain's contribution to the NATO forces), British Forces, Arabian Peninsula (headquarters in Aden), and Royal Air Force, Malta.

### **Aircraft and Equipment**

The spearhead of the RAF is the force of four-engined jet bombers, which is building up steadily. At first, the majority of squadrons were equipped with *Valiants*, but the proportion of *Vulcans* and *Victors*, with greater performance, is rising rapidly.



Stocks of nuclear weapons are increasing, together with Bomber Command's ability to carry them. Improved marks of the V-bombers, now on order, will carry the *Blue Steel* propelled stand-off bomb and will be capable of being refuelled in flight, giving them an increased range. The V-bombers will form for many years the foundation of Britain's deterrent power, though ballistic missiles will gradually play an increasing part.

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 bomber force in Bomber Command is at present equipped with *Canberra* twin-engined jet bombers, but will later be re-equipped with *Valiants*. This force is committed to NATO. A tactical strike reconnaissance aircraft of great versatility, the *TSR.2*, is being developed for Army support and other tactical operations.

Surface-to-air guided weapons are being introduced, but manned fighters will 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 equipped with *Hunter* day fighter and *Javelin* all-weather fighter aircraft. The *Lightning*, the RAF's first supersonic fighter, entered squadron service in 1960. The aircraft 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.

Air defences are being recast in order to concentrate on the defence of nuclear bases. In 1957, an organisation was set up in the Air Ministry to co-ordinate and speed up the introduction of defensive guided missiles and their associated radar, and to integrate them with the existing control and reporting and fighter defence systems. 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. Great advances in the development of radar have been made in recent years. 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. The Royal Air Force will command and operate the joint UK-US Ballistic Missile Early Warning Station being constructed in Yorkshire (see p. 116).

Full-scale service trials of the RAF's first air-to-air guided missile, *Fireflash*, began in 1957 with *Swift* aircraft, for experimental work and training purposes. A more advanced missile, the *Firestreak* (also in service with the Fleet Air Arm), is fitted to Mark 7 and 8 *Javelins* now in service, and will be an integral part of the *Lightning* weapon system until replaced by a guided weapon of even greater performance.

The development of surface-to-air guided weapons is well advanced. The first RAF missile station, at North Coates, Lincolnshire, was brought into use for service trials and training in May 1958. A surface-to-air missile of the semi-active homing type known as *Bloodhound* is now being delivered to the RAF. More advanced types are being developed.

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. A *Comet 2* squadron was formed in 1956—the first all-jet transport squadron in any air force—and has proved very successful. Two squadrons of *Britannia* aircraft are in service for long-range transport; for short and medium ranges, use will still be made of piston-engined *Hastings*.

The *Beverley* freighter, now in service, is a versatile aircraft which can lift large loads. A small number of *Britannic 3* freighter aircraft are on order to supply the need for a strategic freighter able to carry large military loads quickly over long distances. An order has also been placed for a military version of the Armstrong Whitworth *Argosy*, which 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. A contract has been placed for the vertical take-off aircraft, the *Rotodyne*.

Increasing use is being made of helicopters for operations 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 *Sycamore* and *Whirlwind* helicopters have given good service, particularly in Malaya, and the Bristol *Belvedere* twin-engined helicopter is on order.

Basic flying training schools are being re-equipped with the *Jet Provost* trainer and an order has been placed for a training version of the *Lightning*; the *Gnat* trainer is being developed 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 agreement 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, but 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), the RAF College, Cranwell (Secretarial and Equipment Branches), or the Royal Military Academy, Sandhurst (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. Subject to requirements, airmen may re-engage to serve to the age of 55 with the option of discharge after completing 22 years' reckonable service for pension. 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 apprentice advanced tradesmen or between the ages of 15½ and 16½ as boy entrants for training in skilled trades. Apprentices enlist for 12 years from the age of 18 and boy entrants 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, they may subsequently extend their engagements to a maximum of 12 years, or re-engage to serve to the age of 55 with the option of discharge after 22 years' service reckonable for pension. Women between the ages of 17 and 52 may enlist for local service as airwomen for 2 years, which may be extended by one or two years at a time. Women of at least 18½ 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 fighter control units and maritime headquarters units (the latter controlled by Coastal Command) raised and maintained by Territorial and Auxiliary Forces Associations.

The *Royal Air Force Reserve* consists mainly of officers and men who have served in the Air Force. The *Royal Air Force Volunteer Reserve*, which is part of the Royal Air Force Reserve, provides a pool of officers, airmen and airwomen who, like the personnel of the Royal Auxiliary Air Force, train on a part-time basis. It includes members of the university air squadrons.

Part-time National Service men serve in Class H of the Royal Air Force Reserve or they may volunteer 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 aircraft, and of measuring and reporting on radioactivity in the event of nuclear attack. By 1961, 1,500 underground operation centres will have been built for the corps; the first was opened in August 1959.

### **Air Training Corps**

The *Air Training Corps* provides pre-Service training for boys between the ages of 14 and 18 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, while it has greatly intensified the problems of civil defence and has called for much replanning which is still in progress, has not lessened the need for an efficient civil defence organisation. Civil Defence, in the words of the 1958 White Paper on Defence, 'remains an integral part of the 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.

### **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 Services.

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, and he administers 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. The Civil Defence Department of the Home Office is under the charge of a Director-General of Civil Defence, appointed by the Home Secretary. 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 Department deals with questions corresponding to those dealt with by the Home Office in England and Wales, and the Department of Health for Scotland 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<sup>1</sup> by voluntary recruitment of civilians, both men and women:

1. The Civil Defence Corps, which was established in May 1949, to assist 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.
3. The Auxiliary Fire Service, to reinforce the fire services maintained by local authorities under the Fire Services Act, 1947. (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 to reinforce 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.

Subject to restrictions regarding age and obligation to serve in the armed forces, recruits for all services are drawn from men and women who are willing to serve and who will undertake to train regularly. The Government does not pay the volunteers for their services but reasonable out-of-pocket expenses are reimbursed.

Strengths in Great Britain on 31st March, 1960, were:

Civil Defence Corps	.. .. .	359,959
Industrial Civil Defence Service (on 31st October, 1959)	..	192,588
Auxiliary Fire Service	.. .. .	19,584
National Hospital Service Reserve	.. .. .	66,092

*The Civil Defence Corps.* This 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<sup>2</sup> as follows:

Headquarters: control of civil defence operations, communications, reconnaissance (including the identification of toxic agents).

<sup>1</sup> In Northern Ireland there are three main services: the Civil Defence Corps, the Auxiliary Fire and Rescue Service, and the Hospital Service Reserve.

<sup>2</sup> Four in Scotland, where there is no separate Ambulance and Casualty Collecting 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.

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 Casualty Collecting:	first aid, conveyance of casualties 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.

*The Industrial Civil Defence Service.* The Government has invited the managements of the larger industrial and commercial undertakings to form civil defence units for the protection of their own personnel and to assist the public civil defence services. The Government's aim is to have an efficient civil defence unit in all premises where more than 200 people work. Units formed under these arrangements comprise headquarters, warden, rescue, first aid and fire guard sections. These units train in much the same way as the Civil Defence Corps, and in war would operate in close association with it and with the other public civil defence services.

*The Auxiliary Fire Service.* Fire authorities (see p. 77) are required to enrol auxiliary firemen as members of fire brigades for service which is restricted, except in a war emergency, to such duties as are desirable for training. This organisation is known as the Auxiliary Fire Service, but the personnel are members of the individual brigades in which they are enrolled.

### **Training**

Members of the Civil Defence Corps are required to undertake the training necessary to enable them to carry out the duties of an ordinary member of the section of the Corps to which they belong, and thereafter to undertake a few hours' refresher training, including exercises, each year. If they wish to increase their knowledge they may undertake courses of additional and advanced training.

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 Department. Courses and studies for senior officials concerned with civil defence are held at the Civil Defence Staff College at Sunningdale, Berkshire, and in Scotland, at the Home Office 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.

### **The Police**

In time of war the police would continue to be responsible for the maintenance of law and order and the control of traffic, and they would also be responsible for certain additional war-time and civil defence tasks. In all these duties they would have the aid of the Special Constabulary.



## **Role of the Armed Forces**

The Services have a vital role to play in civil defence; all armed forces, whether regular or reserve, in the country at the outbreak of war who are not engaged in active operations against the enemy will have to be prepared to assist in the struggle for survival. The armed forces are in no sense a substitute for civil administration; the aim will be to support the civil authorities by all possible means. 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, between 1955 and 1958, some 25,000 men of the Royal Air Force were 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. As a result, the functions which the military authorities could undertake in support of the civil authorities have been more clearly defined: there is also a growing understanding among the civil authorities of the part that the military authorities can best play.

There are two main ways in which the fighting Services 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.

# V. 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 £3.7 million a year on social services; that is £72 a year a 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.

### Voluntary Organisations

The number of voluntary charitable societies and institutions in Britain runs into thousands, which 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 to give 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 societies represented on the National Council of Associated Children's Homes, the National Marriage Guidance Council, and the voluntary family casework agencies, of which the Family Welfare Association, working mainly in London, is the best known.

Voluntary service to the sick and disabled in general is given by the British Red Cross and the St. John Ambulance Brigade, but a number of societies exist to help sufferers from particular disabilities, such as the Royal National Institute for the Blind,

the National Institute for the Deaf, the National Association for Mental Health, and the constituent members of the Central Council for the Care of Cripples.

Bodies working on a national scale whose work is specifically religious in inspiration include the Salvation Army, the Church Army, the Committee on Social Service of the Church of Scotland, the Church of England Children's Society, the Church of England Moral Welfare Council, 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, 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 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 in probably every service, 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 specialised training for a particular service. The latter is sometimes organised by the profession concerned. An attempt is being made to lessen specialisation in social work. A working party on social workers in local authority health and welfare services, which reported in May 1959, recommended the establishment of a national council for social work training and a new general training in social work, to be available outside the universities, leading to a national qualification. The courses of professional training provided in the universities and one or two other courses of comparable standard would continue to afford the highest qualifications.

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.

### **NATIONAL INSURANCE AND RELATED SERVICES**

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 anyone fall below a certain minimum standard of living.



The Ministry of Pensions and National Insurance administers the first three of these measures 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 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 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.

Under the stimulus of war, when plans for post-war reconstruction were being formulated, Lord (then Sir William) Beveridge was invited by the National Coalition Government to investigate the country's existing social insurance system. In 1942 the Beveridge Report was published; it recommended the creation of a comprehensive and unified system of social insurance. The report aroused intense interest and was accepted in general by the Government as the basis on which the future social security structure should be built.

In the immediate post-war years a series of Acts introduced the new 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, Norway and Jersey. Agreements with Malta, France, Israel, Italy, Luxembourg, the Netherlands, Sweden, Switzerland and Yugoslavia cover national insurance and industrial injuries insurance. With Australia 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 in relation 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 of June 1945. Nearly 5½ million allowances are being paid in Great Britain to just under 3½ million families with two or more children. 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, and parents who are not British subjects may claim allowances if they satisfy a special residence qualification.

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 and 1951, the Family Allowances and National Insurance Acts, 1952 and 1956, and the National Insurance Acts, 1953-59. 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.

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 24 million.

*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 1½ million.

*Class 3—Non-employed persons.* All persons insured who are not in class 1 or 2—about half 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 cannot be insured in their own right unless they were insured under the old scheme on the 5th July, 1948, 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. 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 £156 a year can apply to be excepted from liability to pay contributions.

## Contributions

The main weekly rates of contribution in April 1960 are shown in Table 7. A change in the rates for certain employed persons aged 18 and over is planned to take effect from April 1961 (see p. 137).

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. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
CLASS 1						
Employed persons:						
Paid by employee ..	8 0½	1 10½	9 11	6 7½	1 4½	8 0
Paid by employer ..	7 9½	5½	8 3	6 3½	5½	6 9
TOTALS .. ..	15 10	2 4	18 2	12 11	1 10	14 9
CLASS 2						
Self-employed persons	9 10	2 2	12 0	8 4	1 8	10 0
CLASS 3						
Non-employed persons	7 5	2 2	9 7	5 11	1 8	7 7

(a) Boys and girls under 18 years of age contribute at lower rates.

(b) Including, for class 1, the industrial injuries insurance contribution of 8d. from employee and 9d. from employer for a man, and 5d. from employee and 6d. from employer for a woman.

The Exchequer supplements these contributions from general taxation. They 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.

An insured person ceases to be liable for national insurance contributions when he retires, or is deemed to have retired, from regular employment after reaching minimum pension age (65 for men, 60 for women). 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.

## Benefits

The scheme provides payments to contributors during 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), and to widows 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; two kinds of allowances in



respect of orphan children where a widow's pension is not payable; and pensions for 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 for 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 majority of benefits have been paid, since the scheme began, at one standard weekly rate, now £2 10s. 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 standard weekly rate are the higher rate of £3 10s. 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 14s. 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 10s. a week. Standard increases are payable for dependants at the rate of £1 10s. for an adult (generally a wife), 15s. for the first or only child under the family allowances age limits and 7s., over and above any family allowances payable, for other children. However, the amounts payable to widows for their children are larger: £1 for the first or only child and 12s. for others.

A new system is to be introduced under the National Insurance Act, 1959, for people working for an employer, by which the level of their earnings will affect the rate of both their contributions while working and their retirement pension, though not of other National Insurance payments. It will apply to all whose employers do not contract out of the scheme on the grounds that comparable benefits are already guaranteed, even if an employee changes his employment, under an occupational scheme<sup>1</sup>. For all such employees in the national scheme there will be a new minimum joint contribution of 15s. 4d. (men) or 13s. 6d. (women) instead of the present joint

<sup>1</sup> Occupational pension schemes, organised by employers and outside the National Insurance scheme, at present cover more than one-third of the working population, including half of the men.

contribution of 18s. 2d. or 14s. 9d. (as in Table 7), and a new graduated contribution of  $8\frac{1}{2}$  per cent, divided equally between employer and employee, will be paid on earnings above £9, running to a maximum of 10s. 2d. on earnings of £15 or more. Each £7 10s. of graduated contributions paid by an employed man, with the matching £7 10s. paid by his employer, will add sixpence a week to his standard pension of £2 10s. if he is single and £4 if he is married. For a woman, who becomes entitled to her pension five years earlier, each sixpence will correspond to £9 of graduated contributions paid by her with the matching contributions from her employer.

The new system is to come into operation in April 1961.

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 7s. 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 depends on the amount he has been contributing, subject to a minimum of 5s. and a maximum of £1 for the first or only child and 12s. for each other child.

The rates of grants are varied: £12 10s. 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; £5 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 figures given are those current in April 1960.

### *Duration*

In general, National Insurance allowances are paid for 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 who was 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 standard rate cease when the children reach family allowance age limits, though a mother can continue to receive 50s. 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. The relevant Acts are the National Insurance (Industrial Injuries) Acts, 1946 to 1959. Cover against industrial injuries and diseases in Northern Ireland is provided to the same extent by the separate legislation of the Parliament of Northern Ireland.

## **Benefits**

### *Injury Benefit*

Injury benefit for an adult is £4 5s. a week plus £1 10s. for an adult dependant and 15s. for the first or only child under the family allowances age limits and 7s. 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 5s. for 100 per cent disablement to 17s. a week for 20 per cent disablement. For disablement of less than 20 per cent a gratuity is normally paid, ranging up to £280.

In the following circumstances disablement benefit may be increased:

1. It will be made up to the 100 per cent rate during in-patient treatment in a hospital for the relevant injury or disease, and increases for dependants may also be paid.
2. If benefit is being received at the 100 per cent rate and someone is needed to look after the insured person, a constant attendance allowance not exceeding £1 15s. a week (£3 10s. in cases of exceptionally severe disablement) may be paid.
3. If the insured person is permanently unfit for work an unemployability supplement of £2 10s. a week may be paid, with allowances for dependants.
4. If the insured person is unfit to return to his former job, or work of a similar standard, benefit may be increased (subject to a maximum of £4 5s.) by a special hardship allowance of up to £1 14s. a week.

### *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 £3 10s. 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 £2 16s. 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 a week for the first or only child and 12s. a week for each other child. For other beneficiaries, the rate is 15s. and 7s. 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 AND WELFARE SERVICES

The National Assistance Act, 1948, which came into operation on 5th July, 1948, inaugurated a single comprehensive State service of financial assistance for those in need, whether because their resources, including social security benefits, were not enough to meet their particular requirements, or because they fell outside the scope of other social services. It also gave authority for other kinds of social welfare services besides financial assistance.

The National Assistance Board is responsible for administering cash assistance, in the form of weekly grants. It has various other duties, including the administration of non-contributory pensions under the Old Age Pensions Act, 1936 (still payable on a nationality, means and residence test to a diminishing number of persons aged 70 years or over and to blind persons aged 40 years or over who do not receive National Insurance pensions); the administration of hostels provided under the Polish Resettlement Act, 1947; and the determination (under the Legal Aid and Advice Act, 1949, and the Legal Aid and Solicitors (Scotland) Act, 1949) whether a person's resources bring him within the Legal Aid Scheme and, if so, what, if anything, is the maximum amount he may be called upon to pay towards the cost of his case.<sup>1</sup> It is also responsible for influencing 'persons without a settled way of living' to lead a more normal life, and provides temporary accommodation for them in reception centres, usually 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 two re-establishment centres where they are given courses designed to help them get back into work.

The provision under the National Assistance Act of residential accommodation for the aged, infirm and others, of temporary shelter for people who lose their homes, and of special welfare services for the blind, the deaf, the crippled and other handicapped people is the responsibility not of the National Assistance Board but of county, county borough, and a few district councils in England and Wales and, in Scotland, of councils of counties and large burghs.

In Northern Ireland, financial assistance to a person in need is given under the provisions of the National Assistance Act (Northern Ireland), 1948, and there is also a system of non-contributory pensions similar to that operating in Great Britain. Under the Welfare Services Act (Northern Ireland), 1949, local authorities, in their capacity as welfare authorities, provide residential accommodation for the aged, infirm and others in need of care and attention. The welfare authorities also provide special services for the blind, deaf and other handicapped people.

#### Welfare Services for the Blind and the Disabled

All local welfare authorities provide services for the blind, either directly or through voluntary organisations acting as their agents. Most authorities are providing, or are

<sup>1</sup> For further information on legal aid see pp. 93-94.

arranging for, welfare services for the deaf and other handicapped people; voluntary organisations also play an important part in this work by supplementing local authority services.

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 letters 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.

Welfare services for the blind are well established and progress is being made with similar services 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 the services most generally provided. Local authorities are required to keep registers of the blind in their areas and of other local physically handicapped people who wish to register.

### **Old People's Welfare**

The newer homes provided by local authorities for aged and other infirm persons usually have accommodation for 25 to 40 residents; over 1,100 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 1,900 small homes for old and disabled people run by voluntary bodies or by private individuals. Most of the voluntary homes have been established since the second world war, usually with the assistance of grants from public funds.

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. 72); 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 contribute to the funds of voluntary organisations 'whose activities consist in or include the provision of recreation or meals for old people'. Some 7,000 social clubs for elderly people have been started by voluntary effort in recent years in all parts of Britain. Other voluntary welfare services for old people include 'meals-on-wheels' (cooked meals delivered to their homes), the organisation of regular friendly visiting, holidays, chiropody services, and laundry services.

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 Foundation<sup>1</sup> 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, financed from the fund raised in memory of the late King, has 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.

#### 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, a child 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 their 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. The Secretary of State for Scotland is the responsible minister in Scotland. The cost of

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<sup>1</sup> 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 local authorities' child care service, including the provision of training for houseparents 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 630 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 in Great Britain, whether local authority or voluntary homes, are subject to inspection by Inspectors of the Home Office Children's Department, of the Scottish Home Department or of the Northern Ireland Ministry of Home Affairs.

The practice of adoption, for which legal provision was first made in England and Wales in 1926 and in Scotland in 1930, has considerably increased during recent years. Over 14,000 adoption orders are made annually in Great Britain; 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 70 societies which arrange adoptions) must be registered with the local authority (in Northern Ireland with the Ministry of Home Affairs).

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 maintain inspectors and visitors 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.

### 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 5s. 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 (£2 15s. a week), constant attendance (up to £1 15s. and, exceptionally, £3 10s. a week), comforts (10s. or £1 a week), and lowered standard of occupation (up to £1 14s. 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 Allowance 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 6s. a week, an addition being made for higher rank, and they also receive allowances for their children (£1 5s. for each child), and, in certain cases, an allowance for rent (up to £1 5s. 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 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. 308).

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 to the Minister 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; they are also responsible for the investigation by the Medical Officer of Health of outbreaks of infectious diseases, and for disinfection and other measures advised by him for preventing the spread of infectious diseases in the area.

The same ministers 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 Department of Health for Scotland.

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 and 1952, make some modifications in the scheme for Great Britain and provide 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, 1957-58.

### Health Service Administration in Great Britain

In England and Wales the Minister of Health has direct responsibility for (1) the provision on a national basis of all hospital and specialist services, including those for mental disorder, (2) the conduct of research work into matters relating to the causation, prevention, diagnosis or treatment of illness or mental defect, (3) a public health laboratory service, and (4) 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 or, in the case of teaching hospitals, by boards of governors. The hospitals themselves have been grouped into administrative units; 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 the hospital management committees are appointed by the 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 term of office is three years, one-third of the board or committee retiring each year but being eligible for reappointment. 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 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 administration of the general medical, dental, pharmaceutical and optical services is in the hands of 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 its 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 nearly  $3\frac{1}{2}$  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.

To help to limit expenditure without reducing the services offered, it was found necessary in 1951 and again in 1952 to introduce charges for certain items. There is a charge of 1s. for each item entered on a prescription form, and charges are also made for dentures 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 of pairs supplied.

A committee set up to review the cost of the health service found no scope for recommendations which would either produce new sources of income or reduce substantially the annual cost of the service. It found that the real cost of the service, after allowing for rising prices, had increased little during the years 1949-54, while many of the services provided were substantially expanded and improved.<sup>1</sup>

### **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 2,200. It is normally through the patient's own doctor that access to most other parts of the health service is obtained.

Of about 11,200 dentists in England and Wales available for general practice, about 10,400 are in the service, and in Scotland 1,300 dentists (practically all those in general practice) are in the general dental service.

Over 910 ophthalmic medical practitioners and over 7,300 ophthalmic and dispensing opticians in England and Wales, and 70 ophthalmic medical practitioners and 900 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 2,800 in Scotland) are taking part in the service.

### **Hospital and Specialist Services**

The hospital and specialist services include the provision of consultants; accommodation of all kinds including tuberculosis sanatoria, maternity departments, infectious disease units, institutions and departments for mental disorder, convalescent homes, and rehabilitation centres; and all forms of specialised treatment.

#### *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

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<sup>1</sup> *Report of the Committee of Enquiry into the Cost of the National Health Service, Cmd. 9663, January 1956.*



charitable foundations, such as the famous St. Thomas's and St. Bartholomew's Hospitals in London. One of the newest hospitals in use is the Princess Margaret Hospital, Swindon, of which the first part was opened in 1960; it embodies the latest ideas in design and facilities. 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. Eleven new hospitals have now been completed in whole or in part, and a further 36 are at present under construction or planned, including two new dental hospitals, and three 'acute' hospitals (not for patients with chronic diseases) to serve new towns, as well as extensions and improvements to existing hospitals. It is intended to spend nearly £35 million on hospital building in Great Britain in 1961-62.

About 2,640 of the 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 475,000 staffed beds and a nursing and midwifery staff of 150,600 full-time and 40,000 part-time nurses and midwives. There are 402 hospitals in Scotland with 67,070 beds and 23,280 full-time and 5,310 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 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. 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 Department of Health for Scotland. A close liaison is maintained with the National Blood Transfusion Service and the Blood Group Reference Laboratory of the Medical Research Council.

#### *Mass Miniature Radiography*

Mass miniature radiography was introduced in 1943 as a means of early diagnosis of tuberculosis. About 75 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 nearly four million persons 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*

There are over 1,000 trained almoners working in Britain; the majority work in hospitals, others in local authority services or elsewhere. The almoner co-operates with the medical staff in the investigation and treatment of disease by elucidating and adjusting social and economic factors which contribute to a patient's disability or impede his restoration to health. 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. There are also 8 regional laboratories at university centres and 51 area laboratories.

In Scotland and Northern Ireland, where there is no separate public health laboratory service, bacteriological work is mainly done in hospital laboratories.

#### **Mental Health Services**

The treatment of mental disorder is regulated in England and Wales by the Mental Health Act, 1959, and is to be regulated in Scotland by the Mental Health (Scotland) Act, 1960. Patients who are suffering from mental illness can consult the family doctor and receive specialist advice at hospital out-patient clinics in the ordinary way. If they need to enter a hospital for mental treatment, whether a general or a mental 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 mental 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. 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. The local health authority is expected to offer a welfare service to the mentally ill, either before admission or to help their rehabilitation on discharge.

Local health authorities have a duty to provide services for mentally handicapped people in the community, to visit them and to provide, where practicable, suitable training or occupation. This is given in training centres where they attend daily, as at school, or by home teaching. If necessary the local health authority can place the mentally subnormal person under guardianship within the community or arrange for his admission to a psychiatric hospital. In Scotland, education authorities share the responsibility for providing training or occupation.

### **Local Health Services**

The Local Health Services administered by the county and county borough councils (in Scotland, county and large burgh councils) include those for maternity and child welfare (but not hospitals and maternity homes), domiciliary midwifery, health visiting, home nursing, the provision of domestic help (in such circumstances as sickness, confinement or old age), the ambulance service (in Scotland the responsibility of the Secretary of State, and in Northern Ireland of the Northern Ireland Hospitals Authority), the prevention of illness and the care and after-care of the sick (including the mentally ill and also the mentally defective), vaccination and immunisation, and the establishment and maintenance of local health centres (in Scotland, the responsibility of the Secretary of State).

#### *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 nurses and doctors to expectant and nursing mothers and young children. Special sessions for test feeding and for remedial exercises are held at some centres, and a feature of the service is the education of mothers by means of talks, discussion groups, demonstrations and classes. Practically all centres are distribution points for the national dried milk and vitamin preparations provided for expectant mothers and young children (see below). About 75 per cent of all babies are taken to the centres.

#### *Maternal Care*

According to the advice given by the doctor or midwife, or her own preference, the expectant mother may arrange to have her baby at home or in hospital; in allocating hospital beds, priority is given to 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, for England and Wales, is now 64 per cent. The departmental committee which reported in February 1959 on the maternity services in England and Wales recommended that the hospital service should make provision for 70 per cent of all confinements, which is the actual present proportion of hospital confinements in Scotland. Local needs will continue to vary within this average.

For a home confinement, every mother can call upon 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. The doctor carries out certain ante-natal and post-natal examinations, attends at the confinement if he thinks it necessary, and gives any other medical



care required. The services of a consultant obstetrician are also available if the doctor seeks his advice. Routine supervision and advice is given by the midwife, who visits regularly before the confinement to examine, advise and help the mother. The expectant mother may attend the ante-natal clinic for instruction in preparation for motherhood and in some cases for interim ante-natal supervision. The midwife delivers the patient (unless the doctor considers it necessary to be present) and continues in attendance for the first 14 days after the birth. Midwives work in close touch with the welfare centres in the care of the mother both before and after the birth of the child.

### *Welfare Foods Service*

Local health authorities distribute the welfare foods, other than liquid milk, that the Welfare Foods Service<sup>1</sup> provides for expectant and nursing mothers and young children at a low cost or free of charge. These foods are national dried milk as an alternative to liquid milk<sup>2</sup> and at an equivalent price; orange juice, at 5d. a six-fluid-ounce bottle, for expectant mothers and children under two; cod liver oil, free of charge, for expectant mothers and children under five; vitamin A and D tablets, free of charge for expectant mothers as an alternative to cod liver oil, and also for mothers for 30 weeks after confinement. Milk and orange juice are provided free of charge if the families cannot afford to pay.

### *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 550 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 for moral welfare 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, with at least six months' training in midwifery, who have had special 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, persons suffering from illness,

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<sup>1</sup> 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. Beneficiaries now obtain the necessary tokens from the Ministry of Pensions and National Insurance.

<sup>2</sup> The liquid milk allowance (which is obtained through the usual retail channels) is one pint a day at 4d. a pint for expectant mothers, children under five years of age, and children of five years or more but under sixteen years who are physically or mentally handicapped and who are unable to attend school or a training centre (where they would receive milk).

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.

### *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 mental defectives. This service is mainly used in the care of old 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. Home help is not one of the free services, and authorities are authorised to recover from those assisted such charges as the authorities consider reasonable, having regard to the person's means.

### *Ambulance Services*

Ambulances are provided free by local health authorities either directly or, on their behalf, by voluntary organisations, in the case of any accident or sudden illness in the street or a public place; also, if authorised by a hospital or a doctor, for the conveyance of patients between home and hospital or clinic. The Hospital Car Service (organised by the St. John Ambulance Brigade, the British Red Cross Society, and the Women's Voluntary Services) 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, e.g., the tracing of sources of infection, the prevention of its spread, and the removal of the cause of infection, are the responsibility of all local health authorities. Facilities for diagnosis and treatment are the responsibility of the hospital service and are provided through sanatoria 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, in most areas in England and Wales, by almoners or other chest clinic social workers. Most local health authorities have statutory or voluntary tuberculosis care committees. BCG vaccination is also carried out on all suitable children of 13 and upwards, including students at universities and colleges, and on 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 illness or mental subnormality, 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 some areas. As part of their preventive work, local health authorities can take preventive and remedial measures to safeguard the physical and mental health of children in disintegrating families and give help and advice to the parents.

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 some provide for immunisation against tetanus. In 1959 there was only one death from diphtheria in Great Britain, against 3,158 in 1941.

Vaccination against poliomyelitis is available also without charge to all persons up to the age of 40 years as well as to certain others. BCG vaccination against tuberculosis is available to certain adults and children (see p. 153).

### *Health Centres*

A few health centres have been established to provide facilities for several services under one roof; they differ widely in size and character according to local need. Experience shows that they are likely to be most successful in areas of housing development where new services are needed. The need to observe the working of the experimental centres already set up and to conserve scarce resources is likely to prevent any general expansion of the service in the near future. In Scotland, the provision of health centres is not the responsibility of local health authorities but of the Secretary of State for Scotland.

### **Problems of the National Health Service**

The National Health Service is not without its difficulties and shortcomings. For example, the original ideal of a comprehensive free service 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. Nonetheless, the total cost of the Service continues to rise, largely because of increases in prices and in staff salaries, the high cost of many new drugs and of modern equipment, and the increased use made by the public of the services provided. Moreover, shortages of staff, including dentists, midwives, and nurses, give some anxiety. There is also some disparity between different parts of the country: some 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 by way of home helps and night attendance to enable infirm old people and the chronic sick to remain in their homes.

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.

In hospital administration the role of the central Government is not quite so immediate or 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. The Hospitals Authority has under its control 68 hospitals and three special care institutions containing in all about 16,000 beds.

Vaccination against smallpox is compulsory in Northern Ireland but otherwise the range of preventive and domiciliary services is similar to that existing in Great Britain. Domestic help (whole-time or part-time) for aged or handicapped persons and expectant mothers is provided by county welfare authorities under the Welfare Services Act (Northern Ireland), 1949.

### VOLUNTARY AID FOR THE SICK AND HANDICAPPED

A number of voluntary organisations provide extensive welfare services for sick and handicapped persons in co-operation with, or supplementary to, the provision made by central and local authorities. Some convalescent homes, for instance, of a type outside the scope of the hospital service, are administered by such bodies. 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 service is probably to pioneer in aspects of personal service as yet not touched by the public services. These voluntary agencies are able to make use of many part-time or full-time unpaid volunteers.

A great deal of voluntary help is given to hospitals by voluntary bodies and individual voluntary helpers. More than half 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 Services, 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 qualifying period for enrolment as an assistant nurse is one year's practical training followed by one year's work under supervision. 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 Assistant 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, in due course, only registered ophthalmic opticians (or registered medical practitioners) will be allowed to test sight. Training takes three years followed by a year under supervision.

For the professions of almoner, chiropodist, dietitian, medical laboratory technician, occupational therapist, psychiatric social worker, physiotherapist, radiographer and speech therapist a good general education is required followed by a professional training. The length and nature of the training varies according to the profession, and may be as long as three years.

### MEDICAL RESEARCH

The Medical Research Council (see p. 209) is the main governmental organisation engaged in medical research in Britain. A considerable amount of research is also carried out by the universities and in their associated medical schools and teaching hospitals, while the Minister of Health and the Secretary of State for Scotland, through hospital boards and committees, are also able to maintain research within the National Health Service.

A valuable contribution to research in particular 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. One of the more important of these is the Clinical Research Board, set up in consultation with the health departments to assist the development of clinical research.

## 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. It is estimated that the total public expenditure on education, including university education, will exceed £900 million in the year 1960-61.

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 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 (which must be registered), 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, 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. In England and Wales nearly 7 million children, including about 185,000 under and more than 331,000 over compulsory school age, are attending publicly maintained schools, besides 116,000 others (including 1,500 under and nearly 34,700 over school age) who are at schools receiving direct grants from the Ministry of Education. There are also 496,000 children of all ages at about 4,250 independent schools. In Scotland, 867,000 children are attending publicly maintained or aided schools and about 22,000 are at independent schools. In Northern Ireland, 280,000 children (including 7,000 under and 15,000 over compulsory school age) 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 pass from primary to secondary schools, reduced numbers of primary school children are being 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 birthrate 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 authorities<sup>1</sup>; 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.

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<sup>1</sup> Aided schools have more independence than controlled schools, but they are partly responsible for maintaining their buildings (see p. 164) 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 nearly 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. 161). 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 most 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 their primary education in Welsh and are taught English as a 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, 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 some areas, 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.

The London County Council and some other local education authorities are establishing *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. Twenty-four per cent of the 16-year-old age group is now still in full-time education, at schools or technical colleges, and 12½ per cent of the 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 a number of schools of the comprehensive type 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. Many schools also provide modified courses for pupils of limited ability for whom the normal courses are too exacting.

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.

### 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.

### Secondary School Examinations

In 1951, the General Certificate of Education superseded the former School Certificate and Higher Certificate examinations in the secondary schools (State-aided and independent alike) of England and Wales. This examination, which may also be taken by candidates not attending school, is conducted at three levels (ordinary, advanced and scholarship). Most grammar school pupils and an increasing number of pupils from other secondary schools take the examination at ordinary level. Many

technical college students also take the certificate examinations. The advanced and scholarship examinations are at university entrance and scholarship level respectively. Most candidates are at least 16 years old on 1st September of the year of their first examination, but pupils can sit at an earlier age at the discretion of the headmaster or headmistress of their school, and many do so.

In Scotland, the courses in senior secondary schools lead to presentation for the Scottish Leaving Certificate at about the age of 17, although many pupils who are under that age take the examination. The certificate, which can be taken only by pupils in attendance at Scottish schools, is awarded on examinations conducted by the Scottish Education Department. To encourage pupils who might leave at the age of 15 to stay at school for at least another year, a new ordinary grade leaving certificate for fourth year senior secondary school pupils (who are usually about 16 years old) is to be introduced in 1962.

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 1959, there was one full-time teacher to 26 pupils in publicly maintained primary and secondary schools in England and Wales; the figure was 24 for Scotland and 27 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 to the statutory maxima of 40 for a primary school and 30 for a secondary.

There are 154 teachers' training colleges in England and Wales; in the academic year 1959-60 there were over 31,000 students in these colleges, and the number is expected to rise to 36,000 by 1963; many colleges are being extended and several new colleges are to be built. Up to the present 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 from September 1960. There are 24 university departments of education providing a one-year course for graduates. In Scotland, there are 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. Northern Ireland has two 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.

Teachers from schools in the United Kingdom go to a number of overseas countries each year under interchange schemes or schemes for temporary overseas posts. About 90 teachers from the United States and about 40 teachers from Canada exchange posts for a year with teachers from Britain, and similar exchange schemes, on a smaller scale, operate between Britain and Australia, New Zealand, South Africa and the Federation of Rhodesia and Nyasaland. There are also official schemes operating between Britain and several other European countries for similar exchanges and for temporary assistants' posts for language specialists.

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.

### **Broadcasting and Visual Aids**

The School Broadcasting Department of the British Broadcasting Corporation sends out 53 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 1960, nearly 3,000 schools were equipped to receive the television programmes. From September 1960, the BBC has broadcast to schools nine television series a week and, with repeat broadcasts, a total of 20 transmissions each week; the Associated Rediffusion programmes for schools have also been extended. 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 increasingly used in Britain's schools.

### **Religion in Schools**

In England and Wales, all children in county or voluntary schools, that is, all schools wholly or partly financed by local authorities, 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 nearly 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).

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 950 special schools in the United Kingdom, including hospital schools, day and boarding schools, and boarding homes for handicapped children attending ordinary schools.

### **School Building**

An extensive building programme for education has been undertaken in Britain since the end of the second world war. 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. Although 5,588 new post-war schools had been completed in the United Kingdom by the end of 1959, nearly 600 more were under construction, and extensions had been made to a very large number of existing schools, much remains to be done. Early 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 plans for 118 more schools had been passed by the end of 1959 and were expected to be completed within three years.

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. (The whole cost of maintenance of all denominational schools in Scotland, as of voluntary controlled schools in England and Wales, is borne by public funds.) Grants will also be made for building new aided secondary schools needed for children from aided primary schools which existed on 15th June, 1959.

Advantage is being taken of the opportunity afforded by the extensive post-war building programme to raise standards in public educational building and to introduce new ideas and methods in the design and construction of schools. Education authorities are using both traditional and new methods of building. Post-war school buildings are light and airy, with an imaginative use of colour and generous provision of practical rooms and space for outdoor games.

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.

### **UNIVERSITIES**

There are 22 universities in the United Kingdom: 16 in England, four in Scotland, the University of Wales, and the Queen's University of Belfast in Northern Ireland.

The English universities are: Oxford, Cambridge, London, Birmingham, Bristol, Durham, Exeter, Hull, Leeds, Leicester, Liverpool, Manchester, Nottingham, Reading, Sheffield and Southampton. There is also the University College of North Staffordshire, which is empowered to award its own Bachelor of Arts degree. A new University College of Sussex is planned to start taking students in 1961.

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 Tyne<sup>1</sup>; 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 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 1958-59 was 69.7 per cent for the United Kingdom. Another 2.9 per cent was contributed by local authorities, 11 per cent by fees, and the balance by endowments and other sources.

## 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 (as they were at Oxford until 1957). 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 in Britain limit the number of undergraduates; in spite of the increase in these limits which has taken place since the end of the second world war, the demand for places continues to be very keen and many candidates are unable to gain entrance to the university of their first choice.

At the beginning of the academic year 1959-60, there were 105,200 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. 167).

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<sup>1</sup> A proposal to separate King's College from Durham and establish it as an independent university is under consideration.

## 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.

The Ministry of Education offers about 2,000 State scholarships annually on open competition for full-time honours courses at universities and, in addition, it gives some 1,500 new supplementary grants each year to winners of open scholarships awarded by the universities and colleges from their own funds. The ministry also awards 225 technical State scholarships annually. (These and the ordinary State scholarships may be held at a technical college instead of a university for courses of appropriate level.)

Local education authorities in England and Wales make awards to over 16,000 other students each year to enable them to enter a university.

State studentships for postgraduate study in arts subjects are offered annually by the Ministry of Education; 246 were awarded in 1959. Postgraduate awards for scientists and technologists are made by the Department of Scientific and Industrial Research and the Research Councils.

In Scotland, the power of awarding bursaries and scholarships is confined in the main to the education authorities who, in exercising this power, are required to comply with regulations made by the Secretary of State. There is provision, however, for awards to be made by the Secretary of State to people who have strong connections with Scotland which make it desirable that they should be eligible for assistance from Scottish funds, but who do not have the necessary residential qualifications for a bursary from an education authority. There are no State scholarships, but the Secretary of State supplements scholarships at English universities won in open competition by Scottish students.

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 are made 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 1959-60, 43 per cent of full-time university students in Great Britain were taking arts courses and 57 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. 203).

### 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.

An increase in the number of full-time students in universities in Great Britain from 100,000 in 1958-59 to 135,000 in the latter half of the 1960s has already been agreed; and the possibility of providing an additional 35,000 to 40,000 places by the late 1960s is now being explored. About two-thirds of the additional students who are expected to be in the universities by about 1965 will be students of science or technology.

An extensive building programme is in progress to provide for the increased number of students. In particular, halls of residence are being built to enable a higher proportion of students to enjoy the intellectual, social and cultural advantages of community life, and many new science buildings are needed to provide up-to-date facilities for the increasing proportion of science students.

Building projects in Great Britain to the value of £12 million were begun in each of the years 1958 and 1959 and projects to the value of £15 million have been authorised to start in each of the four years 1960-63. These figures exclude the expansion of the Imperial College of Science and Technology in the University of London where separate special provision is being made for a doubling of numbers—from 1,650 in 1952 (when the plans were first approved) to 3,300—at a total cost of over £15 million. These amounts, together with additional sums for the purchase of sites and properties and the provision of equipment for new buildings, are met from Exchequer funds; further sums are collected by the universities themselves.

Of the major projects included in the annual programmes for the period 1960-63 about 56 per cent by value 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 by value is for general service buildings, such as halls of residence, student unions, refectories and libraries.

### 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 colleges<sup>1</sup> and in evening institutes. These courses may lead to a wide variety of qualifications ranging from external university degrees and the highest technological awards to craftsman's certificates, or they may offer opportunities for pursuing leisure-time interests. In the year 1958-59, there were some 108,000 full-time students at the technical and commercial colleges (excluding art colleges and agricultural institutes) in Great Britain and some 1½ million part-time students. An increasing number of young employees, apprentices and others (473,000 in Great Britain in 1958-59) are released by their employers to

<sup>1</sup> For further information on art colleges see p. 226.

attend technical or general education classes during working hours and the Government is urging industrial and commercial concerns to encourage more of their young people to attend such classes. 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 expanded greatly since the second world war and the Government is promoting further development. In 1956, the Government announced a five-year programme for the expansion of technical colleges designed to provide for an increase of about half as many again in the number of students completing advanced courses and to double the numbers released by their employers for part-time courses during the day. The cost of the programme for buildings and equipment in the five years from 1956 to 1961 was estimated at nearly £100 million, comprising £70 million to be 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.

The largest group of students attending technical colleges are young employees and apprentices who are released by their 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. Most courses for the ordinary certificate last three 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 1958-59 there were 8,516 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. A considerable amount of research is also carried on in the technical colleges: the arrangements vary widely and frequently take the form of a contract between the college and a local industrial concern.

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 five 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* (170), 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* (22), covering wider areas than the local and area colleges, and doing a substantial amount of advanced work, including full-time and sandwich courses;
- (4) *Colleges of Advanced Technology* concentrating entirely on advanced work, including postgraduate and research work, and comprising the following nine colleges: the Birmingham College of Technology; the Bradford Institute of Technology; the Welsh College of Advanced Technology, Cardiff; Loughborough College of Technology; the Royal Technical College, Salford; the Bristol College of Technology (from September 1960); and, in London, the Battersea, Chelsea and Northampton Colleges of Advanced Technology (in the north-east of England, the Rutherford Technical College, Newcastle upon Tyne, has been selected as a potential college of advanced technology); and
- (5) *National Colleges*, of which seven 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.

At present, in England and Wales, there are 396 technical colleges (other than art colleges) that provide for full-time students, besides 162 others which take part-time students only.

Scotland has 16 *Central Institutions* for further education, of which seven are technical colleges. Five 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 50 local technical colleges, offering full-time and part-time day courses, and by evening classes at local centres. Eighteen new colleges are expected to open in the early 1960s.

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. 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. In England and Wales, State scholarships (see p. 166) are available for advanced technological courses.

### **Commercial Education**

Commercial education is provided in local authority commercial and technical colleges, in independent colleges and by bodies organising correspondence courses. Well over half the candidates taking professional examinations in commercial subjects do so through correspondence courses.

In England and Wales, local education authorities maintain about 200 establishments that offer commercial courses at or above intermediate (i.e. Ordinary National Certificate) level: there are 15 colleges of commerce, over 170 commerce departments in technical and other colleges, and nearly 20 establishments which have advanced courses in commercial subjects in the evenings only.

The tradition of relying mainly on evening study has continued longer in commercial education than in technical education, but the Advisory Committee on Further Education for Commerce of the National Advisory Council on Education for Industry and Commerce, in a report published in March 1959, recommended a big expansion of facilities for commercial education in England and Wales, on the lines of that already taking place in technical and technological education. In particular, the report recommends the wider adoption of commercial apprenticeship schemes and the expansion of day release and sandwich schemes.

### **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 1958-59, 170,000 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.

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. The Scottish Institute of Adult Education performs similar functions in Edinburgh.

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, or to obtain specialised training in industry or elsewhere, have greatly expanded since the second world war. There are some 45,000 overseas students in Britain, of whom about one-quarter are at universities, another quarter at technical colleges, and the remainder training for the law, in industry, or at hospitals as doctors or nurses. In the year 1959-60, Britain's universities contained 7,000 students from Commonwealth countries overseas and 4,000 students from foreign countries. About 300 British Council<sup>1</sup> scholarships, tenable usually for one

<sup>1</sup> 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 almost entirely 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 70 overseas countries, foster English studies, provide regular information on British life and thought and promote knowledge of the scientific, literary 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.

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 United Kingdom Government to graduates from the United States of America, and the universities and colleges themselves offer many scholarships for which graduate students of any nationality are eligible. Some two-thirds of all overseas students are from the Commonwealth.

Some universities and other educational institutions in the United Kingdom annually reserve a proportion of their places for students from the United Kingdom dependencies. At the end of 1959, there were over 18,000 students from United Kingdom dependencies studying in the United Kingdom or the Irish Republic, over 3,000 of them at universities. Of the total, 3,634 held scholarships. The chief sources of grants are funds set aside by Colonial Governments (sometimes supplemented by United Kingdom Colonial Development and Welfare funds) and funds contributed by public boards and corporations in the territories.

A wide range of public and private fellowships and scholarships for advanced study in Britain are awarded annually to students and research workers from Commonwealth countries overseas. In the year 1959-60, United Kingdom Government funds amounting to about £620,500 were available for this purpose. Under the Athlone Fellowship Scheme, for example, the United Kingdom Government has from 1951 awarded 38 fellowships a year to engineering graduates in Canada for up to two years' further study, training or research in institutions or industries in Britain. Under the Commonwealth Scholarship and Fellowship Plan, more than 1,000 scholarships have been offered by the governments of certain Commonwealth countries; these awards will be offered to men and women from other Commonwealth countries and will be tenable at universities, colleges and other institutions of higher education in the country of offer. The United Kingdom Government will offer 500; of these, up to 250 had been announced, in June 1960, as available for tenure in the United Kingdom in 1960-61.

Under the United Nations Programmes of Technical Assistance, nearly 600 holders of fellowship awards came to Britain between 1st April, 1959, and 31st March, 1960, for study or training, a larger number than ever before and almost certainly a greater number than received in any other country during that period. Similarly, under the Technical Co-operation Scheme of the Colombo Plan for Economic Development in South and South-East Asia, 667 trainees came to Britain during that same period for industrial or other practical training or for postgraduate research or study of some kind.

During the same period under the Central Treaty Organisation, the Foundation for Mutual Assistance in Africa South of the Sahara, and the British Technical Assistance Programmes for Yugoslavia and Ghana, 92 Fellowships and training awards were taken up for study at British training institutions of many kinds.

### **Arrangements for Overseas Students**

Various bodies in the United Kingdom, official and unofficial, have assumed responsibility for the welfare of overseas students. Guidance is available from the External Relations and General Branch of the Ministry of Education. The Commonwealth Relations Office is also closely associated with educational schemes for students from the overseas member nations of the Commonwealth and from the Federation of Rhodesia and Nyasaland, and is concerned with their welfare. The Students' Branch of the Colonial Office is responsible for placing scholarship holders and recommended students from the United Kingdom dependencies in universities and teacher



training colleges. Student offices, set up in the United Kingdom by the majority of the dependencies and by some overseas Commonwealth member nations, are responsible for the placing of students from their territories in technical colleges, and for practical training and the general welfare of their students.

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 interesting and instructive 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 United Kingdom which offer excellent 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, particularly those from the United Kingdom dependencies and from a number of other Commonwealth and foreign countries. They are met on arrival and helped to settle down quickly in their new environment.

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, on which the British Council and Government departments are represented, 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 of the United Kingdom.

### **British Students Overseas**

It was estimated by UNESCO (*Study Abroad*, 1959) that in 1957-58 there were some 2,500 students from the United Kingdom at institutes of higher education in 18 countries overseas. About 1,500 were postgraduates.

The Commonwealth Education Liaison Unit, set up after the Commonwealth Education Conference in 1959, supplements normal direct dealings on education between the countries of the Commonwealth. Under the Commonwealth Scholarship and Fellowship Plan, United Kingdom students are competing for scholarships tenable from 1960 or 1961, in Australia, Canada, East Africa, Hong Kong, Malaya, New Zealand and South Africa.

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 institutes for higher education in 15 European countries, and in Brazil, Iceland, Indonesia, Iran, Israel and Japan.

### **YOUTH SERVICES**

The object of the youth services 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, or none, 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 services in the United Kingdom is shared by the education departments, local education authorities and voluntary organisations. 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 and the Youth Welfare Acts of 1944 and 1947.

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 the loan of 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 and the King George VI Foundation (see p. 142). 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 Lady 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. The minister is advised by a Youth Service Development Council.

As there had been in recent years a number of reports by advisory bodies in Scotland relating to youth provision, the Secretary of State did not set up a committee of inquiry similar to the Albemarle Committee but decided instead, after consultation with the statutory and voluntary bodies concerned, to set up a Standing Consultative Council on Youth Service in Scotland, under the chairmanship of Lord Kilbrandon, to review the youth service and to promote the development of the service. The Standing Consultative Council, whose initial tenure of office is for two years from December 1959, is expected to advise not only the Secretary of State but also all organisations

engaged in youth service. It is broadly similar to the Youth Service Development Council set up in England and Wales.

Although the Albemarle Committee's inquiry extended only to England and Wales, many of the main recommendations of the report apply to Scotland, while a few already reflect the Scottish position. As in England and Wales, increased financial assistance is being made available from central funds to national voluntary organisations in Scotland; any increased expenditure by Scottish education authorities on direct or indirect provision in their areas will be regarded as relevant expenditure for the purposes of the calculation of the general grant to be allocated for the next period.

### **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*, which is a consultative body that takes action only in the name of its member bodies and with their consent. A further 18 bodies are associate or observer members. 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*.

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 37,500 and 14,000 members under 21 respectively; the Boys' Brigade (158,000), the Church Lads' Brigade (19,000), the Girls' Life Brigade (63,000), the Girls' Friendly Society (25,000), Girls' Guildry (31,000), the Methodist Association of Youth Clubs (118,000), the Salvation Army Youth Organisations (67,000), the Catholic Young Men's Society of Great Britain (25,000), the Young Christian Workers (16,000), the Grail (13,000), and the Association of Jewish Youth (12,000).

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 505,400 scouts and 505,800 guides.

The National Association of Boys' Clubs, with over 2,000 affiliated clubs and 152,000 members, and the National Association of Mixed Clubs and Girls' Clubs, with over 2,500 affiliated clubs and 143,500 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 (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 160,000.

The National Federation of Young Farmers' Clubs in England and Wales has over 42,000 members between 10 and 25 years old, the Scottish Association of Young Farmers' Clubs has nearly 7,000 and Northern Ireland Clubs over 2,500 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 83,000; 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 have in England and Wales, Scotland and Northern Ireland 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 thank-offering to mark his silver jubilee. The income is augmented by gifts and legacies and the Trust has made grants of well over £1 million for the benefit of young people.

The *King George VI Foundation* was set up in 1953 to administer a memorial fund in remembrance of the King. The Foundation's work has been completed by the expenditure, through existing voluntary organisations, of nearly £1.2 million on schemes for the benefit of young people (besides other expenditure on schemes for the old). The principal youth service schemes are the King George VI Leadership Training Memorial, from which £564,500 has been allocated to 34 organisations; the King George VI National Recreation Centre Scheme, through which £400,000 has been provided for centres for training sports coaches, leaders and instructors; and the King George VI Memorial Hostel Scheme, which has provided five new youth hostels with the £163,000 allocated. The Foundation also financed, at the cost of £50,000 over three years, the experimental stage of the Duke of Edinburgh's Award Scheme.

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 fitness. A similar scheme for girls was launched in 1958 as an experiment for girls between the ages of 14 and 20. The three progressive stages cover the following sections: design for living, interests, and adventure and service. The scheme is still in an experimental phase.

The *Outward Bound Trust* maintains five schools which offer 26-day character-building courses for boys, based on adventure and testing experience. Modified courses are held for girls.

The *Central Council of Physical Recreation* is not specifically a youth organisation as it also caters for adults, but it provides practical and advisory services in all branches of physical recreation for many youth organisations. The Central Council and the Scottish Council administer five National Recreation Centres which between them provide training in the leadership and performance of a very wide range of activities.

The *National Playing Fields Association* promotes the provision and preservation of public playing fields and playgrounds for young people and adults through its 50 county and city associations in England and Wales and its branches in Scotland and Northern Ireland. The Association provides technical and advisory services in addition to giving financial grants to approved playing field and playground schemes.

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 (e.g., tennis clubs) usually have a high proportion of young people as members.

# VI. HOUSING AND PLANNING

## PROBLEMS AND ADMINISTRATION

The problems of housing and of planning the use of land in Britain have their origins mainly in the sevenfold expansion of the population in the last two and a half centuries and its concentration in industrial urban areas, which gave rise to overcrowding in the older houses in the centres of cities and to the unplanned spread of outer suburbs. In spite of a high rate of building in the nineteen-thirties, the second world war left Britain facing formidable problems of housing and planning. The need and scope for much rebuilding resulted from enemy action, which destroyed or damaged approximately one house in three.

### Ministerial Responsibility for Housing and Planning

The Minister of Housing and Local Government is responsible in England and Wales for formulating housing policy, for housing standards and for general supervision of the housing programme. In planning, the minister is responsible for implementing general policy regarding the use and development of land throughout England and Wales, and for the direction and guidance of local planning authorities, the new towns development corporations and the National Parks Commission in the carrying out of their planning functions.

The Secretary of State for Scotland has similar responsibilities in Scotland.

In Northern Ireland, the Minister of Health and Local Government is responsible for housing and planning.

The Ministry of Works acts as production authority in Great Britain for the building industry. The agricultural departments are responsible for advising on the agricultural value of land proposed for housing or other development. The Board of Trade is responsible for regulating the distribution of industrial development. An inter-departmental committee on the Services' land requirements meets to harmonise Service and civilian needs and proposals for land use.

## HOUSING

While responsibility for housing policy and for the general execution of the housing programme rests with the minister, local authorities are responsible for housing in their areas to the extent that they must ensure as far as possible that housing conditions are satisfactory, see that adequate standards are maintained in newly built and existing houses, and submit plans for the clearance of unfit dwellings, and for new provision where required. 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 in all about 16¼ million houses in the United Kingdom: over 14 million in England and Wales, 1,600,000 in Scotland, and about 400,000 in Northern Ireland. About 3½ million of the houses in England and Wales and over half a million houses in Scotland are owned by local authorities, that is, in all, about 1 house in 4. Over 5 million houses, about 1 house in 3, are in owner-occupation; most of the remainder (mainly older houses) are rented from private landlords.

Private enterprise is responsible for about half the houses and flats now being built,<sup>1</sup> but local authorities (that is, for the most part, private builders under contract to local authorities) built about 70 per cent of the 3½ million houses completed between 1945 and the end of 1959. While resources were still very limited, following the second world war, and the demand for houses urgent and widespread, local authorities were given the greater share of the programme. Quantitative restrictions on private building were, however, gradually removed from the beginning of 1952, and finally abolished in November 1954. Building reached a peak in 1954, at 354,129 houses or flats completed during the year. The total number built in 1959 was 281,568.

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 cannot be effected at normal rates of interest, by borrowing from the Public Works Loan Board.

Funds for houses built by private enterprise are obtained mainly by borrowing. The chief agencies concerned in lending money are the building societies, insurance companies, industrial and provident societies, and local authorities.

The main emphasis in local authority housing is now on slum clearance and on housing specially suited to old people, although shortage of housing, particularly of unfurnished accommodation for renting, is still a problem in some areas, notably in London, Glasgow, and some other large conurbations. Nevertheless, since 1951 over 7 million people have been rehoused. In selecting their tenants local authorities are required to give preference to families living in overcrowded or otherwise unsatisfactory housing conditions.

## **New Building**

The agencies for building houses in Britain are private builders, local authorities, new towns development corporations, certain Government departments which need to house the families of the armed forces or other Services, and housing associations, which are non-profit-making bodies providing houses mostly for letting rather than for sale. There have also been self-help groups whose members, in their spare time, build houses to be occupied by group members; some of these groups are organised as housing associations.

Local authority houses are normally built for letting, and privately built houses for owner-occupation.

The central departments have issued manuals of guidance setting standards of space, structure, design and equipment for different types of houses and flats provided

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<sup>1</sup> These proportions relate to Great 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 27,293 dwellings built in Scotland in 1959, 4,232 (about 15 per cent) were for private owners.

In Northern Ireland, in the three years 1957-59, out of a total of 16,332 new houses, 6,861 were built for private owners.

by public agencies, and describing how estates can be laid out attractively while saving land and money, by the use of new and improved types of layout.

A number of new forms of construction for permanent houses have been developed with practical encouragement from the Government during the experimental stage.

The typical family house is designed for a household of four or five persons, and contains one or two living-rooms and a kitchen, a store, a bathroom and water closet, and two or three bedrooms. To provide for the growing numbers of old people, though a great deal remains to be done, a much higher proportion of smaller dwellings has been built in recent years, in response to the encouragements of the Government's policy; the percentage of local authority one-bedroom dwellings has risen from 7 per cent in 1951 to 22 per cent in 1959 in England and Wales and from 2.4 per cent to 15.4 per cent in Scotland.

The majority of new dwellings are houses (usually of two storeys) or bungalows; the remainder are flats or maisonettes in blocks of from 2 to 13, and sometimes 19, storeys. Most of the high blocks are built in central areas of cities, where densely populated old, unfit houses are being replaced. Others are in the new towns and other areas of new housing where they counterbalance smaller-scale buildings to provide a variety of types of accommodation at a moderate overall density.

The typical 3-bedroom house built by a local authority in England and Wales in 1959 had a superficial area of just over 900 square feet and cost under £1,880 to provide.

### **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 1958 at about 50,000.

In the four years 1956 to 1959, local authorities in England and Wales demolished or closed 198,287 unfit houses, involving 589,192 occupants; while in Scotland, 35,687 houses were demolished or closed during the same period. In Northern Ireland 498 dwellings were demolished and 668 closed in the two-year period 1958-59.

At the present rate of progress, many local authorities will have completed their programmes by the end of 1960 or soon after; in some of the larger industrial towns, however, where there are a great number of small, obsolete dwellings, mostly dating from the nineteenth century, completion will necessarily 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 under a statutory obligation 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. The slum clearance code also provides for special payments for the good maintenance of unfit houses and business occupiers may receive hardship payments in certain cases.

An Exchequer subsidy is payable to the local authority for every dwelling built because a family displaced from an unfit house is rehoused by the authority.

### **House Purchase Loans**

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 are the most important of these agencies. They do not themselves build houses; their chief activity is providing 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 also 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.

Under the House Purchase and Housing Act, 1959, the Government can advance money to building societies for re-lending to prospective purchasers of older houses. Loans can be made available to enable designated building societies who have joined the Government scheme to advance up to 95 per cent of the value of a private house bought for owner-occupation, where it was built before 1st January, 1919, and does not exceed £2,500 in value (or £3,000 in London). Building societies were already lending some £40 million to £50 million a year for the purchase of pre-1919 houses, in addition to some £330 million a year for newer houses; Exchequer loans for the purchase of older houses should, therefore, enable the societies to lend more for newer houses also; and societies which have joined the scheme undertake to make advances of 95 per cent on houses built between the wars.

Local authorities 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 now make loans of up to 100 per cent of the house's value, and there is no longer any restriction upon the value of houses that can attract loans. (There is still a limit of £5,000 for loans made by local authorities under the Small Dwellings Acquisition Acts, but authorities make wider use of the more flexible alternative provisions in the Housing Acts.)

### **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.



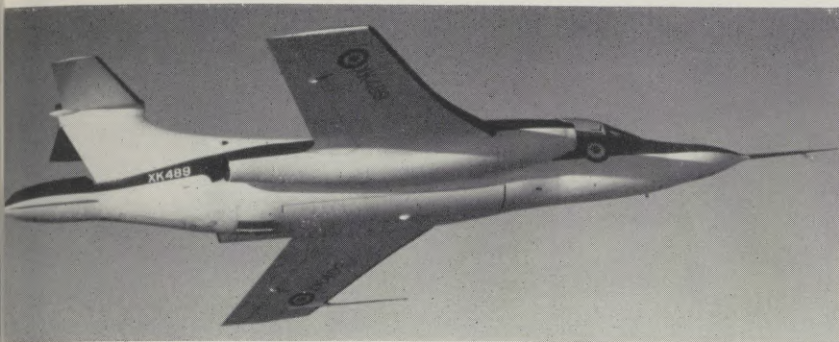
In England and Wales, a standard rate of subsidy was paid for ordinary houses or flats built to meet general needs, and higher rates of subsidy were provided for certain types of housing (e.g., high blocks of flats on expensive sites), housing built for particular purposes (e.g., for the agricultural population) and housing in special areas (e.g., poor areas of low rate-paying capacity). While the Housing Subsidies Act, 1956, provided an extended range of subsidies for special categories of housing, it reduced, and provided for the abolition of, the standard subsidy on dwellings built for general needs. This subsidy was abolished as from November 1956, except for one-bedroom dwellings, on which it was retained to encourage the provision of accommodation for elderly and single persons.

Legislation on subsidies for new housing in England and Wales is now consolidated in the Housing (Financial Provisions) Act, 1958. The categories of new building by public bodies for which subsidies are available are: dwellings built for the purpose of slum clearance rehousing, or for rehousing persons in unsatisfactory temporary accommodation (£22 1s. per dwelling per year); housing for the population moved out of a congested area (e.g., to a new town or as part of an approved scheme of town development) or moving to meet the urgent needs of industry (£24 per year); dwellings otherwise unsubsidised with not more than one bedroom (£10 per year); housing provided to meet the needs of the agricultural population; housing on expensive sites, or where measures have to be taken against subsidence, or to preserve the character of the surroundings; and housing in areas where more accommodation is urgently required than could be provided by the local authority without imposing an unreasonably heavy burden on the local rates or necessitating the charging of unreasonably high rents. On flats, higher rates of subsidy are paid for blocks of four or more storeys. There is also a subsidy available to private persons building houses for agricultural workers.

Local authorities and private owners in England and Wales can obtain Exchequer assistance for the improvement of existing houses or adaptation of 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 thus provided. 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, 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, and the House Purchase and Housing Act, 1959.

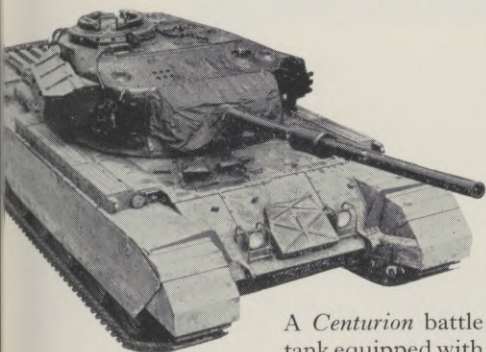
Building subsidies and improvement grants are also provided in Scotland and Northern Ireland; the amounts of subsidy are generally higher owing to higher costs and different circumstances. In Scotland, there is a subsidy of £24 per house per year for houses built by public authorities to meet general needs, with higher rates of subsidy for those for special needs (e.g., overspill, incoming industry, agricultural workers). Grants are also available to local authorities and private owners for the



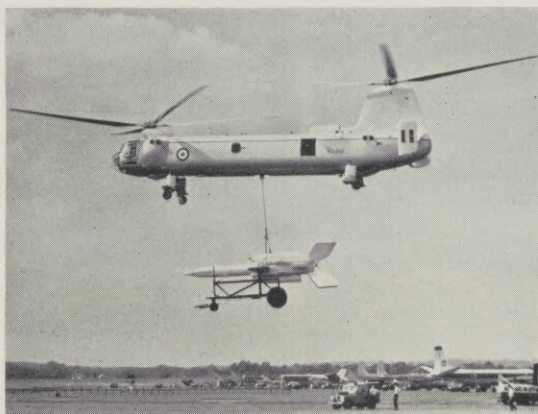


The *Buccaneer* (NA 39), in production for the Royal Navy as a strike and reconnaissance aircraft.

Below: The Bristol *Belvedere*, the new Royal Air Force helicopter, lifting a Bristol *Bloodhound* guided missile.



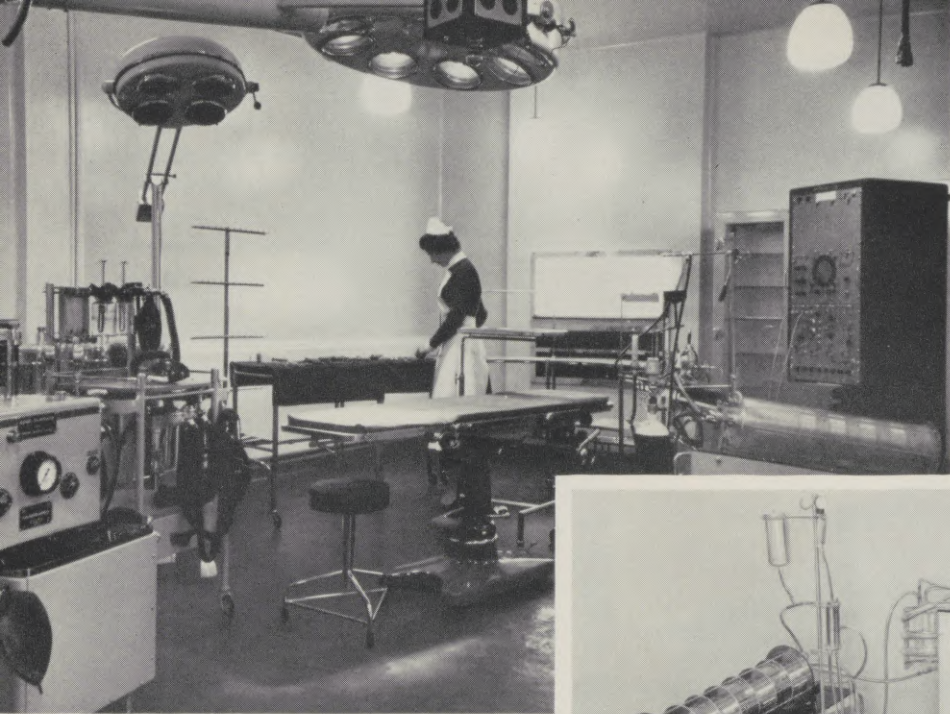
A *Centurion* battle tank equipped with the 105 mm. tank gun.



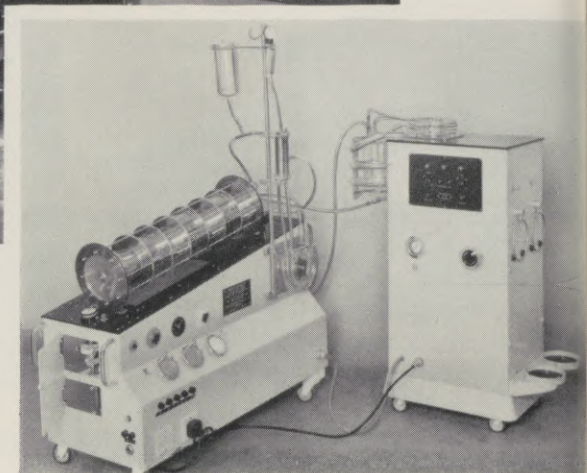
HMS *Bulwark*, the Navy's first Royal Marine commando carrier, with Westland *Wirlwind* helicopters.







The operating theatre in the new cardiovascular surgery department at Glasgow Royal Infirmary. At this hospital, where Joseph Lister, originator of disinfectants, was a professor, several improvements have already been made to the *Melrose* heart-lung machine (seen above and on the right).



The *Barnet Ventilator* is a 56-lb. portable electronic lung developed in Britain for use in the treatment of respiratory conditions such as poliomyelitis.





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 Trust<sup>1</sup> 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 the United Kingdom 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 majority of the privately owned houses in Great Britain which are let are subject to rent control. Houses owned by local authorities, new towns development corporations, housing associations, and the Scottish Special Housing Association are, in general, free from control, as are new houses completed since 30th August, 1954.

Since the autumn of 1956, the Government has pursued a policy of progressive abolition of rent control on the grounds that the previous system was leading to deterioration and wasteful use of the nation's stock of housing.

The first Rent Restrictions Act was passed in 1915. The Acts now in force, either wholly or in part, are the Rent and Mortgage Interest Restrictions Acts, 1920 to 1939, the Landlord and Tenant (Rent Control) Act, 1949, the Housing Repairs and Rents Acts, 1954, the Rent Act, 1957, and the Landlord and Tenant (Temporary Provisions) Act, 1958.

The Rent Restrictions Acts, which, before 6th July, 1957, applied with few exceptions to all privately owned unfurnished dwellings below a certain rateable value, limited the rent a landlord might legally recover from the tenant, while at the same time giving the tenant security of tenure. The Acts also made illegal most premiums for the grant of a tenancy of rent-controlled premises. Landlords restricted in this way were themselves protected against an increase in mortgage interest rates and the calling in of the mortgage, provided they paid the restricted interest due. The Housing Repairs and Rents Acts, 1954, allowed landlords to increase their rents to pay for repairs, subject to certain conditions and to a maximum limit.

The Rent Act, 1957, amended the Rent Restrictions Acts and the Repairs and Rents Acts of 1954. It established, for the houses remaining in control in England and Wales, revised rent limits more in keeping with the current value of money and the cost of maintenance, and permitted in Scotland increases in controlled rents subject to certain conditions. It provided that new unfurnished lettings should be free of control, both in the  $4\frac{3}{4}$  million houses in owner-occupation when the Act was passed which, previously, if let unfurnished, would have been subject to rent control, and in controlled houses which should fall vacant and be re-let. In addition, over 800,000 houses let at controlled rents were released from control by the lowering of the limits of rateable value below which rented houses are subject to control.<sup>2</sup> The Act provided for the de-control from time to time of further categories of houses by order, subject to approval by Parliament. Certain exceptions and safeguards for the protection of

<sup>1</sup> 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.

<sup>2</sup> The limits under the Act are £40 per year in the London Metropolitan Police District and Scotland and £30 per year elsewhere.

tenants were provided under the Act, and tenants of properties released from control by the lowering of the control limits were given further temporary protection by the Landlord and Tenant (Temporary Provisions) Act, 1958, which expires on 31st July, 1961.

For England and Wales, the Furnished Houses (Rent Control) Act, 1946, established rent tribunals to determine the rents of houses or parts of houses let furnished or with services, in cases referred to them by the lessor, the lessee or by the local authority. Similar legislation for determining rents of furnished lettings was passed for Scotland in 1943. The Rent Act, 1957, provided that, if the premises when let unfurnished would be above the rateable value limits for control, they should not if let furnished come within the scope of the Act of 1946. The Landlord and Tenant (Furniture and Fittings) Act, 1959, made it an offence to offer furniture and fittings at an excessive price as a condition of tenancy, and to fail to provide an inventory specifying the price asked for each item to people supplied with particulars of the tenancy.

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.

### TOWN AND COUNTRY PLANNING

The land of Britain is one of the most densely populated areas in the world and it is therefore of vital importance in the public interest that competing claims to its use should be settled in such a way that the necessary balance between them is maintained.

From 1909 onwards, the idea of the planned use of land was given a degree of expression in successive Acts of Parliament, but because the pattern of development over much of the country had already hardened into large unplanned urban concentrations (as a result of the industrialisation processes of the previous century) the powers granted to planning authorities by the early Acts were inadequate for the task in hand.

The twenty years between the two world wars were decades of expansion in industry, engineering and house-building; population was increasing, and 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 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. Despite this effort, which culminated in the Town and Country Planning Act, 1932, inter-war planning legislation had only a limited effect, mainly because it failed to deal adequately with the question of compensation, which had always been an obstacle to satisfactory planning. By the nineteen-twenties, it had become generally accepted that the property of an individual might be subjected to restrictions in the public interest, provided that just and due compensation (out of public funds) were paid. In theory, such payments should, to some extent, have been balanced by revenue from betterment charges (i.e. charges payable by those whose property had been enhanced in value by development), but, in practice, such charges

proved almost impossible either to determine or to collect. As a result, local authorities often hesitated to acquire land necessary for development for fear of being involved in compensation liabilities beyond their means; and, therefore, in spite of improved sanitary and environmental conditions and some progress in preserving amenities, many of the outstanding problems of land use remained unsolved.

Renewed efforts were made to deal with these problems 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 Distribution of Industry Acts, 1945 and 1950; the New Towns Acts, 1946 and 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; and the Housing and Town Development (Scotland) Act, 1957. 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 pattern of land use in Great Britain is governed by the Town and Country Planning Act, 1947, and the Town and Country Planning (Scotland) Act, 1947, which are the principal Acts and provide for (1) 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 (2) the control of development by making it subject, generally, to the permission of a local planning authority or of a central Government department. The Acts also give extensive powers to public authorities to acquire and develop land for planning purposes, provide for grants from public funds towards the cost of schemes of major redevelopment, and deal with certain questions of amenity, e.g., 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 Town and Country Planning Acts, 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*

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) are 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 is expressed by an authoritative written statement describing the major projects in the plan, supplemented by a series of maps based on a survey of the physical and other resources of the area. Fresh surveys must be carried out every five years and plans may be extended and altered at any time, so that they may be kept up to date. Local authorities must advertise their plans when they submit them for approval, and the ministers concerned must consider objections and representations from the public and, when necessary, arrange for local inquiries to be held. Once a plan has been approved, it cannot be challenged except on the grounds that it is *ultra vires* or that statutory requirements have not been fulfilled.

All the planning authorities in England and Wales had submitted their plans by 1957, and by the beginning of 1960, 142 plans had been approved. By the latter date, 47 of the 57 local planning authorities in Scotland had submitted plans or part-plans; 28 of them had received approval to whole plans and 7 to part-plans. Several authorities in both countries had also submitted amendments and additions to their original plans. During recent years, emphasis has been placed increasingly upon the need to preserve open country round large towns, and in a number of approved development plans, proposals for the maintenance or extension of green belts have been incorporated. Planning authorities have also been encouraged to provide more land for development beyond green belts and to make more extensive use of land within existing towns.

### **The Distribution of Industry**

The Town and Country Planning Acts, 1947, and the Local Employment Act, 1960, contain provisions to control the location of industry throughout the country. General problems of industrial development are dealt with jointly by a number of Government departments, but the main responsibility for controlling the siting of industry as apart from its general location rests with the local planning authorities, for it is their duty, subject to the consent of the Board of Trade, to ensure that industrial development fits properly into existing and expanding communities and is consistent with the best use of land.

### **New Towns**

The New Towns Act, 1946, gives the Minister of Housing and Local Government and the Secretary of State for Scotland, who are the responsible ministers, powers 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, after consultation with the local authorities concerned and if it is in the public interest to do so. Once the site has been designated, the responsible 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 is then prepared, and this becomes the basis for development proposals, each of which covers a part of the area. Every 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 housing, 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, this exemption does not apply.

The capital cost of developing the new towns 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 must submit annual reports (which must include copies of their audited accounts) to the Minister of Housing and Local Government or to the Secretary of State for Scotland, who are responsible for laying them before Parliament.

As each new town in England and Wales is substantially completed (a point which has almost been reached in some towns), 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 will operate during the period of new town consolidation, will consist of not more than fifteen members, appointed by the Minister of Housing and Local Government, and it will be responsible for maintaining and enhancing the value of the land entrusted to it with due regard to the purpose for which the towns were developed and the convenience and welfare of the people working there. No new towns commission is proposed for Scotland, where new town development is at a less advanced stage.

There are fifteen new towns in Great Britain—twelve in England and Wales and three 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; four others—Corby in Northamptonshire; Aycliffe and Peterlee in Durham; and Cwmbran in Monmouthshire—are to serve the special needs of their areas. The Scottish new towns—East Kilbride in Lanarkshire, Glenrothes in Fife and Cumbernauld in Dunbartonshire—are being established to assist in housing the surplus population from Glasgow.

The new towns are generally recognised as one of the most successful experiments of the post-war years, industrially, financially and socially, and they represent a notable achievement in the translation of planning into reality. By the end of June 1960, the total population of the new towns in England and Wales, designed to be 550,000 when the towns are completed, had reached an estimated total of 406,600 (including the people previously living in the area); 77,407 houses had been built by the development corporations, and a further 9,204 were under construction; 375 factories had been established and a further 30 were being erected; 1,774 shops had been completed, and 148 more were being built; 147 schools had been finished and 18 more were under construction. Considerable progress had been made in the construction of the town centres of most of the towns; many miles of roads had been laid; large main sewerage works had kept pace with industrial and domestic needs; an increasing number of police, fire and bus stations and services had been provided; and sites had been reserved in the town centres for municipal buildings of all kinds. Sites had also been reserved for general hospitals, on three of which building had already begun.

In addition, some advance had been made in the provision of permanent community buildings and other communal amenities, which is the responsibility of the

local authorities of the towns. Approximate overall figures for certain amenities, including temporary buildings and some which are adequate for limited use only, are (in England and Wales): 227 halls for hire; 34 community centres; 84 churches and church halls; 31 public libraries; 29 health centres and clinics; and 49 public houses.

In the Scottish new towns, at the end of June 1960, the population, eventually to be 130,000, had reached an estimated figure of just over 48,000; 10,470 houses had been built, with a further 1,950 under construction; 28 factories had been established and a further 6 were being built; 122 shops had been completed and 20 were under construction; 14 new schools were in use, and the extension of communications, public services and communal amenities was under way.

Under the New Towns Act of 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, stood at £400 million.

### **Town Development Schemes and War-damaged Cities**

The Town Development Act, 1952, makes provision for the relief of congestion in large industrial towns by encouraging the transfer of population and industry to appropriate country districts in England and Wales. By the end of 1959, as a result of a series of agreements between local authorities, some 7,000 houses had been built or were under construction (with a further 23,000 projected) in the expanding towns to take population from London, and some 9,000 (with a further 25,000 projected) for overspill from large provincial cities. By the same date, 71 firms had built, or were building, factories covering over 2 million square feet in the expanding towns. The Housing and Town Development (Scotland) Act, 1957, makes similar provisions for central Scotland.

Individual plans for the reconstruction of areas of extensive war damage have also been drawn up and approved and the central areas of several provincial cities, e.g., Bristol, Coventry, Exeter, Kingston upon Hull, Portsmouth, Plymouth, and Southampton, have been almost entirely rebuilt. In the county of London, building is going on at the rate of fourteen acres a week, and ten square miles of the area have been rebuilt during the last nine years, while in the City of London, projects valued at more than £58½ million had been completed by the end of June 1960. The 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 the population and accommodating much of the industry and commerce of the city.

### **National Parks and Access to the Countryside**

The National Parks and Access to the Countryside Act, 1949, provided for the designation of a number of extensive areas of beautiful country in England and Wales as national parks. In these areas the characteristic landscape is to be carefully preserved, and facilities for open-air recreation may be provided or improved.

A National Parks Commission was set up by the Act and by April 1957 its work had resulted in the establishment of ten of the twelve national parks recommended by the National Parks (England and Wales) Committee, which reported in 1947. Of the other two, the Broads (Norfolk) were still under consideration in June 1960, and the South Downs will not become a national park. The established parks are: 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. The administrative arrangements for the parks are as follows: the Peak District and Lake District National Parks are administered by joint planning boards; for Dartmoor, the Pembrokeshire Coast, the North York Moors and Northumberland, special park planning committees of the respective county councils have been set up; while in Snowdonia, the Yorkshire Dales, Exmoor and the Brecon Beacons (which include areas of more than one county council) there are park planning committees representative of each of the constituent county councils, advised by a park joint advisory committee. All these authorities control development in the parks and take such positive action as they deem necessary to enhance their natural beauty and to promote enjoyment of them by the public. As a result, derelict land is reclaimed, 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 towards certain approved expenditure on improvements.

The National Parks Commission has power to designate other areas in England and Wales as 'areas of outstanding natural beauty' in order to keep them unspoiled. By the end of June 1960, eleven of these areas had been established and a further eight were under consideration. Those established are Gower, Quantock Hills, Lleyn, Northumberland Coast, Surrey Hills, Cannock Chase, Shropshire Hills, Dorset, Malvern Hills, North Devon coast and parts of Cornwall. In these areas government grants are available only for certain measures taken to enhance natural beauty.

Designation of a park or 'area' does not, of itself, mean that the general public has right of access. Local planning authorities have been given the task of surveying the extent to which land in their areas is already open to the public, and are empowered to increase it, where desirable, by means of agreements with owners or by access orders. In National Parks and areas of outstanding natural beauty, government grants are available towards the cost of making such agreements or orders and in the Peak District large tracts of country have been opened to the public in this way.

A complete survey of all footpaths and bridleways in England and Wales is also being made 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 for travellers on foot or on horseback. By the end of June 1960, all county councils had prepared draft maps of rights of way for the whole of their areas, based on individual surveys of footpaths carried out by parish and county district councils. 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. By the end of June 1960, the National Parks Commission's proposals for the creation of six routes, covering 929 miles, had been approved; progress had been made by means of surveys, cairn building and footpath agreements, towards their completion; and discussions were taking place between the commission and the relevant local authorities regarding the establishment of more routes of this kind.

#### *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 Loch Ard (renamed

the Queen Elizabeth Forest Park to commemorate the Coronation) in Scotland; the Forest of Dean in England; 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 is rather less than half a million acres, including planted areas and unplanted 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 the necessary powers for the proper discharge of its functions from the National Parks and Access to the Countryside Act, 1949. The object of conservation, which is to influence soils, water, vegetation and animal life, by means of research, experiment and control, 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 and the making of grants-in-aid for specified research.

Eighty-two nature reserves, 36 of which have already had comprehensive management plans prepared for them, had been declared in Great Britain by the end of June 1960. The combined area was 138,437 acres, of which 39,639 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.

Eight forest nature reserves have 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 in the interests of nature conservancy and forestry. A similar arrangement has been made with the Crown Estate Commissioners, by which a 45-acre area is being managed in the interests of nature conservation and ecological research.

The unofficial and voluntary counterpart of the Nature Conservancy is the Council for Nature, established in 1958 on the initiative of the Society for the Promotion of Nature Reserves. The council represents the interests of both national and local natural history societies (at present over 230 such societies are members) and the importance of its work has been recognised by the receipt of substantial grants from the Ministry of Education, the British Broadcasting Corporation and the Carnegie United Kingdom Trust. The council's Conservation Corps consists of young people who carry out practical tasks of nature reserve management, such as the clearance of scrub and the opening up of blocked waterways. Its Intelligence Unit acts as an information bureau on all aspects of natural history in the British Isles, issues a monthly press bulletin of natural history news, and edits the council's half-yearly bulletin, *News for Naturalists*. The unit's Films Officer organises training courses for amateur cinematographers interested in making natural history films.

### **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 various statutory planning authorities and commissions. The Ministry of Works is also concerned as the department 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 10,000 most important protected monuments listed in Britain (ranging from prehistoric remains to nineteenth century buildings) are in the care of the ministry; and, by the end of June 1960, grants totalling nearly £3 million had been offered and accepted towards the cost of urgently needed repairs to 713 historic buildings in England, Scotland and Wales.

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 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 by 1960 had some 91,000 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 15,000 members and has under its care some 60 properties, covering in all over 70,000 acres.

### **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) or to an independent person appointed by the ministry.

All 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. Many interim



development applications have been decided by local planning authorities, and appeals lodged with the ministry have been relatively few.

*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.

## VII. 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. 158) 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.

### *Relations with the State*

No single Act of Parliament defines the position of the Church of England in the way that the Treaty of Union, 1707, defines the position of the Church of Scotland.

In England, the relationship of Church and State is one of mutual obligation—privileges accorded to the Church which are balanced by certain duties which it must fulfil.

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, Primate of all England; 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 Minister; and all clergymen take the oath of allegiance to the Crown.

The Church is further 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; canon laws (Church rules) cannot be made or amended without the consent of the Queen in Council; and the measures of the Church Assembly (as distinct from their regulations) are not valid without parliamentary assent.

#### *Church Organisation and Government*

The Church of England is organised by geographical areas, and not by congregations. There are 43 dioceses (with the Isle of Man and the Channel Islands) each under a bishop, grouped into two provinces, each under an archbishop: Canterbury (29 dioceses) and York (14 dioceses). The dioceses are sub-divided into ecclesiastical parishes, of which there were 14,642 in 1958. Everyone in England is born in a parish, and the parish church is expected to play an active part in local life. Many people who do not attend its services regularly tend to look to it for such personal ministrations as baptism, marriage and burial. The baptised membership of the Church is about 27 million, i.e. 66 per cent 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 more often 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 by the Crown 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 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 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 in 1959 was just under three million.

The Church of England has its own ecclesiastical courts. Their jurisdiction, as it is exercised today, consists almost entirely of faculty cases, with 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.

The Church has 26 church training colleges for teachers<sup>1</sup> and 25 theological colleges.

### *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 Church Assembly Fund and various other central funds (including that for the training of ordination candidates) are administered by the Central Board of Finance of the Church of England. The State makes no payment to the Church except for services rendered (e.g., chaplaincies to the armed forces and in prisons).

The Church Commissioners, a body created by measure in 1947 to replace the former Ecclesiastical Commissioners and Queen Anne's Bounty, administers the endowment income of the Church. It is largely responsible for the payment of stipends of the clergy, and it also provides finance for pensions, new churches, parsonage houses, and church schools. The total income from investments and all other sources in the financial year 1958-9 was £13,217,000. The total annual income of the Church is estimated to be approximately £35 million; no precise figure can be given.

<sup>1</sup> A programme of expansion of church training colleges, which included an increase in the number of students from nearly 5,000 to nearly 8,000 and the building of a new college, was approved at the 1959 spring session of the Church Assembly.

## 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 354,000 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 Englishmen have gone as settlers, traders and missionaries. The Protestant Episcopal Church in the United States of America, 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 constitution has been agreed for a new province of East Africa, to include five dioceses in Kenya and Tanganyika. In Uganda, a province is in process of formation which will include seven or eight dioceses instead of the present two. In addition, there remain nine overseas dioceses under the jurisdiction of the Archbishop of Canterbury. Terms of limited intercommunion with the Church of South India, similar to those already existing between that Church and the Church of India, Pakistan, Burma and Ceylon, were laid down in resolutions passed by the Convocation of Canterbury in 1955.

Since 1867, the Lambeth Conference has met every tenth year (except for the war years) as an unofficial consultation between all Anglican bishops; it is presided over by the Archbishop of Canterbury. The last meeting, which was held in London during July and August 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 was appointed in 1960 to be the executive officer of the Anglican advisory council on missionary strategy, and to exercise 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 2,257 churches is governed locally by the Kirk Session, consisting of the minister and elected elders (of whom there are over 44,000 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 in 1960 was estimated at 1,316,000.

### **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. More positively, the Free Churches would affirm that the reason for their existence is a deep conviction about the nature of religious worship.

#### *The Methodist Churches*

The largest of the Free Churches is the Methodist Church, formed in 1932 by the union of the majority of independent Methodist Churches. It has some 740,000 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 23,000 trained lay preachers sharing the ministers' work 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 which, while retaining the essential Methodist doctrine, gives autonomy to each of its 177 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 212,000.

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 a total of about 321,000 members.

### *The Unestablished Presbyterian Churches*

The largest of the presbyterian churches outside the established Church of Scotland is the Presbyterian Church in Ireland; in Ireland, there are 30 presbyteries (some of which are situated in the Irish Republic) and the communicant membership is about 138,000. 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 147,000. The Presbyterian Church of England is organised in 14 presbyteries and has nearly 71,000 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 8,500; 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 2,800 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, was founded in the middle of the seventeenth century by George Fox. It has no ordained ministry and does not observe the sacraments. One of the chief characteristics of the Quakers is their belief in pacifism and their firm adherence to pacifist methods. 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 about 21,600 Quakers in Britain; they have about 440 places of worship.

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 sub-divided. In England and Wales, there are four provinces and archdioceses (Westminster, Liverpool, Birmingham and Cardiff), 14 dioceses, and 2,214 parishes; in Scotland, there are two provinces and archdioceses (St. Andrews and Edinburgh, and Glasgow), six dioceses, and 386 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 172 parishes. In the whole of the United Kingdom, there are some four and three-quarter 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 400,000 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 of all sections of Jewry number approximately 445, including 17 Liberal and 15 Reform congregations. There are a few schools which cater exclusively for Jewish children, but the vast majority 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 most 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.

A Buddhist temple was opened in South Kensington, London, in 1954; and other premises were opened in 1956 as 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 was founded in 1942 and 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 organs 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, and is to hold its third assembly in 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 specific issues, but there is no machinery of continuous co-operation. 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.



# VIII. 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 those learned societies and institutions devoted specifically to this end, but only a small part of the national research programme is carried out directly by them. Most of the 'pure' or 'fundamental' research is conducted in the universities, which also play an essential part in promoting the sciences by maintaining a steady supply of trained scientists. In practice, it has become impossible to distinguish clearly between 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 the 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 between the universities, industry and the Government has developed, which leaves the greatest possible measure of freedom to individual scientists. The learned societies, whose membership is derived from all three categories, play an important part in the discussion and publication of the results of research.

Important work is also undertaken by independent organisations—for example, in medical research, by the British Empire Cancer Campaign, the Imperial Cancer Research Fund, the Nuffield Foundation (which as a charitable trust also undertakes a wide range of other activities, see footnote on p. 142), the Lister Institute of Preventive Medicine, the Wellcome Foundation and Trust, and by some large pharmaceutical firms.

## 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 and 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, 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, although for two centuries scientists were in a minority among its members, whose interests then lay mainly in history, art, archaeology or exploration. The society has always been independent of State control but its advice on scientific matters has frequently been sought by the Government. Today its influence remains as strong as ever and its Fellows serve on most of the official advisory councils and committees concerned with science. It appoints members of some non-governmental committees, such as the British National Committee on Space Research (see p. 214).

Its Fellowship consists of approximately 600 eminent scientists and 60 foreign members. Admission of the former is restricted to 25 a year, and of the latter to four a year; a few eminent non-scientists are also elected to Fellowships. The society maintains a library (about 145,000 volumes of a purely scientific nature), issues a large number of publications, including the *Philosophical Transactions* and the *Proceedings*, and convenes conferences which are attended by scientists from all countries.

In addition, the Royal Society is responsible for the administration of a number of Government grants and of many research funds and special funds derived from various sources. These funds and grants are used for the promotion of science through research, publications, congresses, the award of medals, lectures, and in many other ways. The highest honour bestowed by the Society is the Copley medal, for which scientists of all nationalities are eligible.

In 1960 the Royal Society celebrated the tercentenary of its foundation and among the events to mark the occasion the Isaac Wolfson Foundation endowed a special research professorship, known as the Wolfson Research Professorship of the Royal Society.

During the International Geophysical Year (IGY), the observational phase of which ran from mid-1957 until the end of 1958, the Royal Society co-ordinated the national research effort by Government departments, universities and other institutions.

*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 the dissemination of 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 over the next ten to fifteen years the current annual output of some 10,000 qualified scientists and engineers would need to be raised to 20,000. The Government accepted this figure as a reasonable goal and supports measures to ensure that the universities and technical colleges together will be able to produce at least this number. No detailed reassessment of the long-term demand has been made as a result of the 1959 survey.

### The Universities

The universities carry the main responsibility for the pursuit of fundamental research and for the training of scientists. During recent years there has also been a considerable expansion of 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 the students will be studying scientific and technological subjects. More than half of the students at universities are now studying some branch of science or technology.

Eighteen of the 22 universities of the United Kingdom have faculties of engineering; chemical and aeronautical engineering have been developed in recent years. 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, Durham and Southampton. 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 technology. Sheffield is unique for its department of glass technology—the pioneer among such departments in the world.

Nearly all universities and university colleges in the United Kingdom have laboratories or research departments. About 70 per cent of the recurrent income of the universities and a very large proportion of their money for new building comes from Government sources. There is no direct departmental control and the method of administering the grant—through the University Grants Committee (see p. 165)—is designed to ensure academic freedom. The universities also receive funds for the furtherance of research from industrial organisations, foundations, and individuals as well as from the Government research councils and the autonomous industrial research associations. 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: this body, on which the university and chamber are equally represented, 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 is responsible for the general direction of 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 world's largest steerable pencil-beam radio telescope at Jodrell Bank, Cheshire (see also p. 214), 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 (outlined in 1956 in a White Paper, *Cmd. 9703*), include the increase of advanced work at technical colleges as well as at the universities. Certain technical colleges in England and Wales, which concentrate entirely on advanced work, including postgraduate and research work, have been designated as 'colleges of advanced technology' (see p. 169). In Scotland, advanced instruction in a wide range of technologies is given at the Central Institutions (see p. 169).

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.

### RESEARCH IN INDUSTRY

Industrial research in Britain is conducted by industry in its own laboratories independently of Government aid, by co-operative research associations which are assisted in varying degrees by the Government, by independent institutes for sponsored research, by consultant laboratories, by Government laboratories and by universities and technical colleges. The main nationalised industries have their own research establishments (particulars of which are given in the appropriate sections of Chapter X, Industry), and also give financial support to organisations concerned with research into matters of interest to them. Results of inquiries into research expenditure are given on p. 221.

### 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 1959, there were 50 such research associations with a combined income of £7½ million, of which about one-quarter was contributed by the Government through the Industrial Grants Committee of the Department of Scientific and Industrial Research. The amounts of the Government grants are related to the contributions made by the industries concerned. The industries served by the associations cover a very wide range, in particular textiles, engineering, metallurgy, fuel and food manufacturing. This list is not exclusive.

The research associations are autonomous bodies, governed by their own councils whose members are mostly representatives of industry. The councils are advised by research committees in the preparation of research programmes. The research associations make the results of their work known to their member firms by a variety of methods, among which are bulletins, publications, lectures, films, training classes, exhibitions and mobile demonstration units. (For an account of methods of communicating the results of research see p. 221.)

### *Institutes for Sponsored Research*

A number of institutes for sponsored research exist to do work on a confidential basis for industry, 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 and the *Sondes Place Research Institute*, Dorking, Surrey.

*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 such varied items as electronic digital computers, towed flexible barges (known as dracones), anti-tumour agents, an ultrasonic flow meter, a new form of transport known as the hovercraft, a hydrogen-oxygen fuel cell as a transportable source of electricity and new antibiotics called cephalosporins.

**GOVERNMENT RESEARCH ORGANISATION**

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.

**Early Examples**

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, now transferred to the Department of Scientific and Industrial Research; 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.

**Evolution of the Research Organisations**

Government scientific organisations, like many British institutions, evolved gradually in response to changing social and economic circumstances.

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'. In 1911, the Development 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. The ARC gradually took over the responsibilities of the Development Commission 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 the minister 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 on further Government changes in 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 Nature Conservancy and the Overseas Research Council, and is chairman of the five Privy Council committees to which they report. 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.

The administrative staffs comprising the former Office of the Lord President of the Council and the Atomic Energy Office have been merged into a single Office of the Minister for Science, with a general division (corresponding to the former) and an atomic energy division (corresponding to the latter).

### **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, which, under the Department of Scientific and Industrial Research Act, 1956, replaced the former Advisory Council.

The Research Council consists of as many members as may be determined by the Minister for Science; in 1960, it had a chairman and 11 members. It is charged 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 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.

Among the principal research stations operated by DSIR are: the *National Physical Laboratory*, Teddington, Middlesex, which conducts research in various branches of non-nuclear physics and maintains British primary standards and physical units; the *National Chemical Laboratory*, also at Teddington, which concentrates on basic chemical research not being done elsewhere applicable to a variety of industries; the *National Engineering Laboratory*, at East Kilbride, Scotland; the *Road Research Laboratory*, at Harmondsworth, Middlesex, which does research on road construction,

safety and traffic flow; the *Building Research Station* near Watford, Hertfordshire; the *Warren Spring Laboratory*, near Stevenage, Hertfordshire, opened in June 1959, which 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; it undertakes sponsored research and teams from industry can work there; its initial programme includes development of a pilot-scale plant for the synthesis of liquid fuels; research on atmospheric pollution and research and development in mineral processing; the *Tropical Products Institute*, in London, transferred to DSIR from the Colonial Office in April 1959, which aims at improving the economic 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 *Laboratory of the Government Chemist*, in London, transferred to DSIR from the Treasury in July 1959, which provides a wide variety of analytical, investigatory and advisory services to all Government departments on request, and has a statutory function as official analyst and as an adjudicator in cases of disputed analyses; in addition it undertakes various research projects, including the development of chemical and physical methods of analysis; and the *Radio Research Station* at Slough, Buckinghamshire, which, besides carrying out research on radio wave propagation and space research, has housed, since October 1956, the World Data Centre for the IGY and latterly a similar Data Centre for scientific information obtained from space vehicles.

The DSIR is expanding its activities under a second five-year plan for the years 1959-64; expenditure—at £61 million—will be nearly double that of £36 million under the first five-year plan 1954-59. Expansion will continue steadily throughout the period, and for the year 1963-64 is planned to reach £14 million. The largest increase will be in scientific research grants to universities. Postgraduate awards to students will be increased by about 10 per cent each year until, in 1963-64, it is hoped that some 3,800 students will be receiving DSIR grants for research training. In the same year, DSIR support for special research in universities should reach about £1.75 million a year. Expansion of staff in the DSIR's own laboratories is to proceed at the rate of about 6 per cent a year. Grants to the 50 research associations in the DSIR scheme will be increased to over £2 million a year by 1964. The Research Council will continue its policy of encouraging industry to bear an increasing proportion of the total cost. The actual expansion of the research association movement will thus probably be proportionately greater than the increase in the Government grant. It has also been decided to devote much more attention and money to ensure that the results of research are known and applied (see pp. 221-2).

### Medical Research Council

The Medical Research Council (MRC), the successor of the Medical Research Committee, was incorporated under its present title by Royal Charter in 1920.

The 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 MRC, 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 MRC 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 scientific investigations to obtain new knowledge likely to be of value in the field of curative and preventive medicine. In planning and carrying out its research programme, the council is often assisted by special committees appointed to advise on particular subjects. Its arrangements for the support of research fall under three 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; and
- (3) 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 70 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 colonial development and welfare funds, maintains laboratories in the Gambia and units in Uganda and Jamaica.

### **Agricultural Research Council**

The Agricultural Research Council (ARC) was established by Royal Charter in 1931. It 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.

Under the Agricultural Research Act, 1956, the ARC was charged with the organisation and development of agricultural research, and an Agricultural Research Fund was established, into which are paid the parliamentary grant-in-aid and other sums received by the council, and out of which are met all expenses incurred by the council under the Act or in accordance with the terms of its charter. The accounts of the fund are audited by the Comptroller and Auditor General.

The council consists of not more than 18 nor fewer than 15 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. The council has 23 research stations and units under its direct control in Great Britain, including three laboratories concerned with the preservation, storage and protection of foodstuffs, transferred from the DSIR in July 1959, when the ARC assumed responsibility for Government research on food (other than fish), taking over from DSIR the Low Temperature Research Station, the Ditton Laboratory and the Pest Infestation Laboratory.

It is also responsible for the financing of the independent research institutes (see p. 205) in England and Wales (but not in Scotland). 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 for Scotland.

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 statistics.

### **Nature Conservancy**

The Nature Conservancy was established by Royal Charter in 1949 and 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, Furzebrook, Wareham, in Dorset, and Speyside, Inverness and field stations at Moor House, Westmorland, and at Anancaun, Ross, 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.

### **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 policy in respect of scientific research for overseas, and to co-ordinate advice and assistance on research matters provided by the United Kingdom research councils and the various colonial research committees (see p. 217). 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.

### **Nuclear Energy**

Before 1946 the Department of Scientific and Industrial Research was responsible for atomic energy research and development. From 1946 to the end of 1953 this responsibility rested with the Minister of Supply. Because of its growing industrial applications, however, the Government decided to transfer responsibility for atomic energy to a non-departmental organisation. As a result, in January 1954, ministerial responsibility (except for weapons production) was transferred to the Lord President of the Council; and the Atomic Energy Authority Act, 1954, established the United Kingdom Atomic Energy Authority (UKAEA) which, in August 1954, took over responsibility, under the Lord President, for atomic energy research and development. Ministerial responsibility under the Atomic Energy Acts was assumed by the Prime Minister in April 1957, and in October 1959 was transferred to the Minister for Science (then the Lord Privy Seal, now the Lord President of the Council).

The Minister of Aviation has taken over from the former Minister of Supply responsibility for the development and production of atomic 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 atomic 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 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 has a general responsibility for the application of nuclear propulsion in 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, 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, consists of a chairman, and not fewer than seven nor more than fifteen other members.

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 the bulk of its revenue is derived from money voted by Parliament and in that its accounts are certified by the Comptroller and Auditor General.

The organisation is divided into four 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*, centred at Harwell, Berkshire, conducts research into all aspects of atomic energy. Much of its work is of a fundamental nature without direct regard to particular applications. Most of the applied research at Harwell is now devoted to peaceful uses of nuclear energy, although some assistance is given on specific problems relating to weapons. In addition to numerous research reactors and accelerating machines, Harwell houses *Hermes*—the largest isotope separator in Europe—and an apparatus for investigating controlled thermonuclear reactions—*Zeta* (Zero Energy Thermonuclear Assembly). In order to study the basic scientific principles involved in such reactions, a new apparatus, *Icse* (Intermediate Current Stability Experiment), which will be capable of operating at higher pressures and faster rates of increase of electric current, is being built at a new research centre at Culham, Oxfordshire, to which all controlled thermonuclear research work is to be removed. Such experiments in Britain and elsewhere may lead to the possibility of obtaining almost unlimited supplies of energy from water.

A second main research centre at Winfrith, Dorset, is concerned mainly with research into reactor design and development. A high-temperature gas-cooled reactor known as *Zenith* started operating there in December 1959. It will be used to establish design characteristics for a larger 20 MW reactor—*Dragon*—financed jointly by a number of member countries of the Organisation for European Economic Co-operation (OEEC), including members of the European Atomic Energy Community (Euratom). The United Kingdom will provide the largest share and retain ownership of the *Dragon* reactor.



The research group is concerned with preparing and distributing radioisotopes and other radioactive substances. Marketing of these materials has now been taken over by the Radiochemical Centre, Amersham, Buckinghamshire, which 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 a reactor school, started in September 1954, which provide training for home and overseas students.

The *Development and Engineering Group* is responsible for development, design and construction of reactors and associated plants (except for some development work which is undertaken by the research group); for engineering consultant work for the electricity authorities, overseas organisations and the nuclear power companies; and for the general engineering design and construction of all major building projects. The group has its headquarters at Risley, Lancashire, and it includes the Dounreay Experimental Reactor Establishment, Caithness, Scotland (housing an experimental fast-breeder reactor, a materials testing reactor and a prototype submarine reactor), the Culcheth Laboratories, Lancashire, and research and development organisations at Capenhurst (Cheshire), Windscale (Cumberland) and Springfields (Lancashire).

The *Production Group* is responsible for the operation of UKAEA factories (including the Calder Hall and Chapelcross reactors); research and development concerned with factory processes; and commercial activities taken over from the industrial power branch of the former industrial group.

The production group's headquarters is at Risley, Lancashire, and its plants are at Capenhurst, Cheshire (for the production of enriched uranium); Springfields, Lancashire (for uranium metal production and the manufacture of reactor fuel elements); Windscale, Cumberland (now being expanded as one of the national centres for the development of advanced gas-cooled reactors as well as for chemical processing); Calder Hall, Cumberland; and Chapelcross, Dumfriesshire, both of which produce plutonium and electricity, the former also housing a reactor operation school, established in 1957.

The *Weapons Group*, centred at Aldermaston, Berkshire, conducts research on and development of nuclear weapons, including the explosion of test weapons, both under Ministry of Aviation contract and in its own right. The group also carries out research work on controlled thermonuclear reactions.

#### *National Institute for Research in Nuclear Science*

In February 1957, the Government set up a National Institute for Research in Nuclear Science, 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 the nuclear field. 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. The Rutherford High Energy Laboratory being built at Harwell will house the institute's proton synchrotron (particle accelerator). This 7,000 million electron volt apparatus, now under construction, will be one of the largest such machines in the world.

#### **Space Research**

A United Kingdom programme of upper atmosphere research using *Skylark* rockets has continued since its initiation in association with the International

Geophysical Year. By the end of 1959 over 20 successful experiments had been carried out at the Woomera launching ground in Australia and valuable information obtained on winds, temperature and electron density, at heights of up to about 100 miles. The *Skylark*, however, was designed as an upper atmosphere research tool and is not strictly a space vehicle.

The United Kingdom's role in space research was considered by the Advisory Council on Scientific Policy in its report for 1958-59. It recognised that British science and technology had much to contribute in space research, but considered that this contribution should be part of an internationally based approach.

At present a limited programme of scientific experiments is in hand. A Steering Group on Space Research has been set up to advise the Minister for Science who has general co-ordinating responsibility for the programme as a whole. A British National Committee on Space Research appointed by the Royal Society is responsible for its scientific aspects, and co-operates with international scientific bodies such as the Committee on Space Research (COSPAR), a special committee of the International Council of Scientific Unions (ICSU). As a first stage, in May 1959, the Government announced approval for a programme for the design and construction of instruments to be carried in earth satellites. Advantage is also being taken of a United States offer to launch satellites containing scientific instruments designed and constructed in other countries, and experiments designed in the United Kingdom are to be included in a *Scout* satellite, due to be launched from a site in the United States in the latter part of 1961. This satellite will be the first of a series under a joint programme with the United States. Ways of intensifying Commonwealth and European co-operation are also being considered and the United Kingdom is playing its full part in the United Nations Committee on the Peaceful Uses of Outer Space.

Apart from this programme, work is in hand to determine the feasibility of adapting British military rockets to provide means of launching a British satellite, should an all-British effort be decided upon.

The successful launching of the United States satellite *Pioneer V* was carried through with the help of the Jodrell Bank radio telescope (see also p. 204), which sent the signal to separate the satellite from the third stage of the rocket vehicle and other signals switching on and off the rocket's transmitters. While the main purpose of the telescope is the study of stars, very distant nebulae and galaxies detectable only from their emission of electromagnetic waves, it is also being used extensively in the tracking of space rockets and earth satellites and has sent the first messages reflected from the moon and Venus. Tracking is also being carried out at the Radio Research Station of the DSIR, which also provides one of the three World Data Centres, set up to continue work of this kind initiated in connection with the International Geophysical Year.

### **Other Government-sponsored Scientific Research**

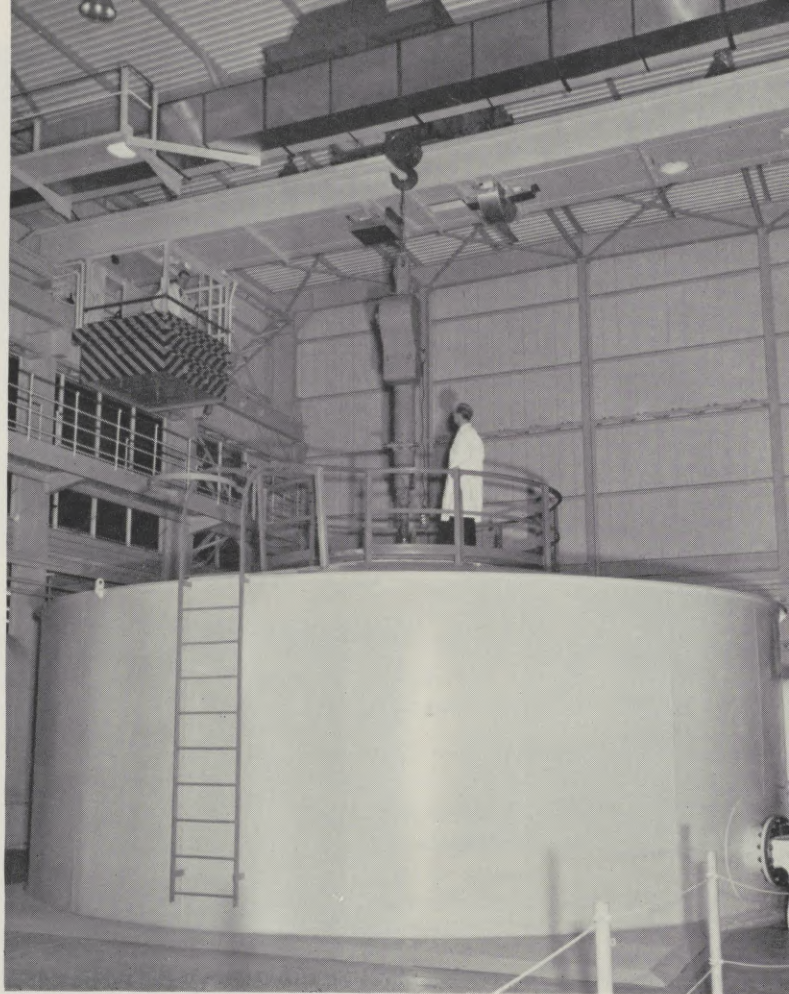
All departments rely on one or other of the Government research councils for scientific advice. While some use these bodies as their main source of scientific information, a few have set up supplementary research organisations of their own.

#### *Defence Research with Civil Applications*

Research and development undertaken by the Admiralty is primarily directed to meeting the requirements of the Royal Navy, but a substantial amount of this work has important civil applications. For instance, besides sponsoring research into nuclear propulsion for ships (see p. 118) the Admiralty is responsible through the

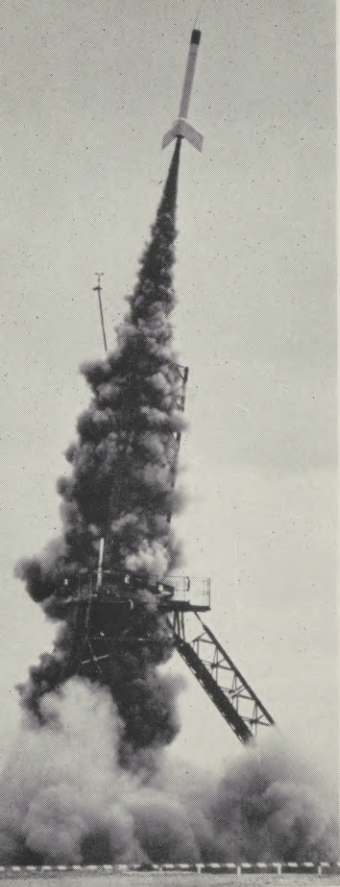


Loading a fuel element into the *Zenith* reactor at Winfrith, Dorset, which is being used in connection with the *Dragon* project of the European Nuclear Energy Agency (see p. 212).

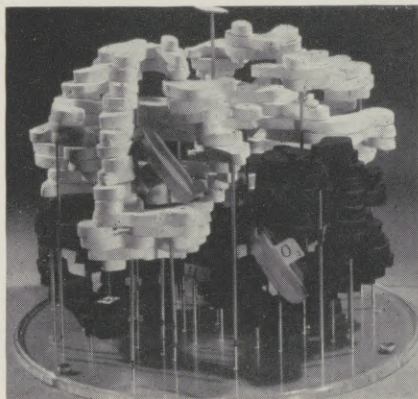
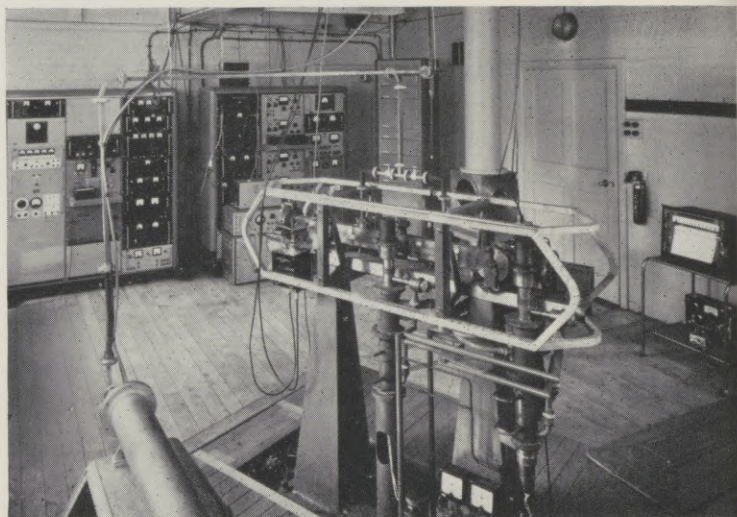


The *Merlin*: the first privately owned nuclear research reactor in the United Kingdom, produced by the AEI-John Thompson nuclear energy group. Another, the *Jason*, is produced by the Hawker-Siddeley group. Several research reactors have been exported.



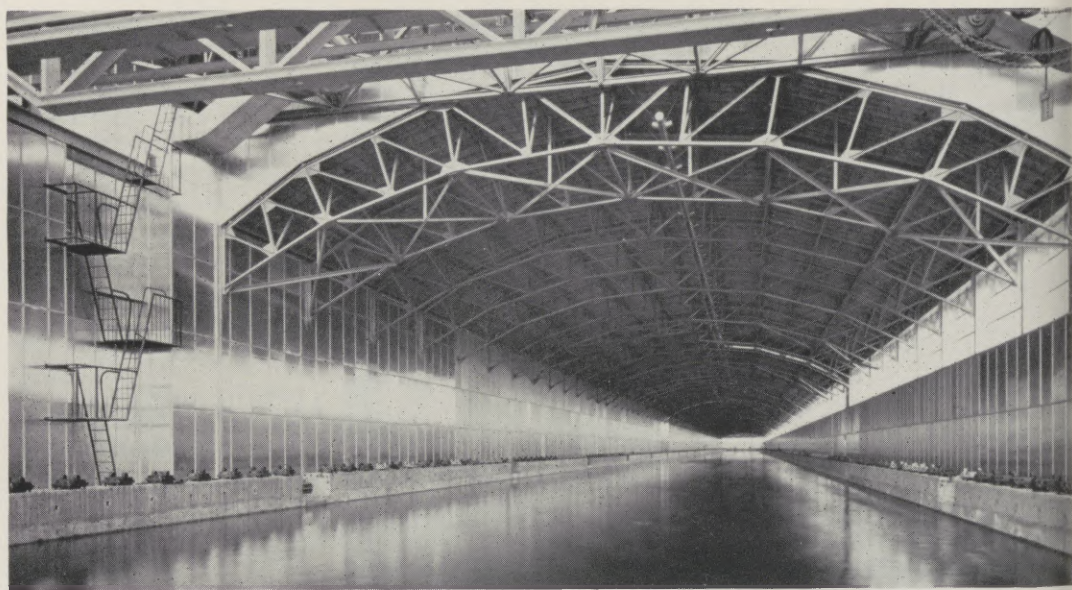


The *Skylark* research rocket for investigating the upper atmosphere (see p. 213); over 20 have been launched successfully.



The atomic clock at the National Physical Laboratory: invented by Dr. L. Essen, it provides the most accurate standard of time in the world.

Model of the structure of the protein haemoglobin, based on work at the Cavendish Laboratory, Cambridge: an example of successful research into molecular structure.



The model-testing tank, 1,300 feet long, at the Ship Hydrodynamics Laboratory, Feltham.



Royal Naval Scientific Service for inter-Service electronic valve research and development. The research activities of the Royal Greenwich Observatory, at Herstmonceux, and the National Institute of Oceanography, which are mainly in the civil field, are also administered by the Admiralty. At the former, the 98-inch Isaac Newton optical telescope now being built will be the largest in Britain.

The Ministry of Aviation carries out most of the research needed to meet the technical requirements of defence and is also responsible for some civil research, e.g., at the Royal Aircraft Establishment, the National Gas Turbine Establishment at Farnborough, and the Royal Radar Establishment at Malvern. Some fundamental research is also carried out for the ministry by universities and industrial organisations.

The Air Ministry finances the Meteorological Office, which is responsible for research in meteorology and geophysics, mainly directed to non-military ends. Its three main divisions—at present in London, at Harrow, Middlesex, and at Dunstable, Bedfordshire—are being transferred to a new building under erection at Bracknell, Berkshire.

The Forecasting Research Section has recently 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.

#### *Agriculture*

Apart from research at the centres controlled or grant-aided by the Agricultural Research Council and the Department of Agriculture for Scotland, the Ministry of Agriculture, Fisheries and Food carries out a certain amount of applied research in its own veterinary laboratories at Weybridge, Surrey, and at Lasswade, Midlothian, Scotland, and also at its plant pathology laboratory at Harpenden, Hertfordshire; while at its infestation control laboratories at Tolworth and Worplesdon, Surrey, it conducts research into problems affecting the destruction and control of insect pests of stored food, rodent pests and other animal and bird pests. 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. Research is carried out as it arises from this work. In Northern Ireland, research in all the major agricultural sciences is carried out in conjunction with the Ministry of Agriculture.

#### *Fisheries*

The authorities concerned with fisheries research are: the Ministry of Agriculture, Fisheries and Food, which maintains four laboratories for marine, shell-fish, salmon and freshwater fisheries research, and four research vessels; the Department of Agriculture and Fisheries for Scotland, which maintains a marine research laboratory, four research ships at Aberdeen, and a freshwater research laboratory at Pitlochry; and the Development Commissioners.

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.

#### *Food*

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 all scientific and technical aspects of departmental food policy; it identifies problems in food procurement, processing, utilisation and distribution which require investigation; and it arranges for such investigations to be made at appropriate research centres. It also promotes the application of the results of research, either directly or in co-operation with the food industries concerned. The division, which has its own experimental laboratories and kitchens in London, includes sections dealing with nutrition, food technology and food in relation to defence, as well as a central liaison section.

The Food Research Advisory Committee, appointed by the minister, advises on food problems (other than fish) requiring investigation or research which should be undertaken with the aid of public funds, and makes recommendations as to the priorities to be afforded to such problems. The Committee comprises representatives of the food industry and of organisations concerned with food research.

### *Forestry*

The Forestry Commission undertakes experimental work relating to silvicultural and allied problems. 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 and undertakes a certain amount of research into the development and economical utilisation of fuel and power, notably in connection with oil synthesis. The nationalised coal, electricity and gas industries are required to submit their research plans for his concurrence and there is close collaboration between the Ministry of Power, the scientific departments of these industries and the Department of Scientific and Industrial Research. Oil companies themselves carry on extensive research into petroleum products (see p. 311).

### *Transport*

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, the Department of Scientific and Industrial Research and the Ministry of Aviation which is also responsible for research into airport operations. Research on radio aids for marine navigation is undertaken by the Admiralty.

### *Land Use and Planning*

The Ministry of Housing and Local Government is responsible for policy relating to the use and development of land in England and Wales. The ministry deals with technical planning and geographical, geological, economic and sociological research. Similar arrangements are made in Scotland by the Department of Health for Scotland. The Ministry of Health and Local Government is responsible for the general administration of the planning legislation in Northern Ireland.

### *Building*

The Building Research Station of the Department of Scientific and Industrial Research is responsible for reviewing the whole field of research and technical development of the building industry and, with the Ministry of Works, for ensuring that the results of research are made available to the industry.



*Communications*

The Post Office undertakes scientific research on a wide range of subjects relating to telephone, telegraph and radio systems which is carried out by the engineering department. Examples of such research are the gradual introduction of automatic dialling for long-distance telephone calls, and the progressive mechanisation of postal and clerical operations. It also undertakes the experimental development of radio transmitters and receivers for Post Office services and other Government departments. Development in the application of electronics for the telephone services is being planned in conjunction with industry through the Joint Electronic Research Committee. The Post Office keeps in close touch with the British Broadcasting Corporation (BBC) and the Independent Television Authority (ITA) in connection with the development of broadcasting techniques.

*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 Department of Health for Scotland 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.

*Research in the Human Sciences*

The Council for Scientific and Industrial Research promotes research in the human sciences in three ways. On the advice of its Human Sciences Committee it awards grants for special researches to universities, colleges of advanced technology, and other research institutions. Work in the general field of the human sciences is conducted as part of the programme of the Building Research Station, the Road Research Laboratory and the National Physical Laboratory. A Human Sciences Section at the Warren Spring Laboratory has its own programme of research, some of which will be put out on contract to universities and other research institutions.

*Colonial Research*

The bulk 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. Much of it requires close collaboration with research institutes and laboratories in Britain. The Overseas Research Council advises on general questions of policy and co-ordination. Specialist committees deal with research into such subjects as agriculture, animal health, forestry, medicine, social science, and colonial products.

*Anti-Locust Research*

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.

#### *Other Research Work*

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, containing the largest collection of living plants in the world, and the Ordnance Survey Department, both now administered by the Ministry of Agriculture, Fisheries and Food.

The three research departments at the Royal Botanic Gardens, Kew, 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.

The Ordnance Survey Department was founded in 1791 to prepare a map of Great Britain mainly for defence purposes. Its present work is chiefly civil in character (see p. 49).

#### **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 Great 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 informal, 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. Membership in 1960 comprised 178 members of Parliament and representatives of 109 scientific and technological institutions.

The committee provides, as far as possible, for a regular exchange of information between members of Parliament and scientists, and endeavours to ensure that action is taken to correct matters seen to be wrong in the light of such information.

### **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, e.g., the United Nations Educational, Scientific and Cultural Organisation, the World Health Organisation, the Food and Agriculture Organisation, and those concerned with nuclear energy, e.g., the International Atomic Energy Agency, the European Organisation for Nuclear Research (CERN) and the European Nuclear Energy Agency, 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 European Economic Co-operation (OEEC) 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 respective atomic energy authorities, 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 UKAEA 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. Amongst 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.



### *The Standing Committee on Overseas Scientific Relations*

This is a committee of the Advisory Council on Scientific Policy which was set up after the war to consider and advise on United Kingdom Government policy on matters of 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 and New Delhi. These representatives are accredited to a total of 11 countries (Austria, Canada, Denmark, France, Germany, India, Norway, the Soviet Union, Sweden, Switzerland and the United States) and are also concerned with five others (Belgium, Finland, Italy, Luxembourg, and the Netherlands) 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, e.g., OEEC, NATO, UNESCO, ILO.

### *Commonwealth Agricultural Bureaux*

Machinery exists in the Commonwealth Agricultural Bureaux for liaison in the field of agricultural science between countries of the Commonwealth. In the United Kingdom there are ten bureaux, specialising in various branches of agricultural science, and two institutes—the Commonwealth Mycological Institute and the Commonwealth Institute of Entomology. A third institute, the Commonwealth Institute of Biological Control, has its headquarters in Ottawa, Canada. The bureaux collect, collate and disseminate information resulting from agricultural research.

### *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, postgraduate 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. 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 some 70 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.

### Expenditure on Research and Development

The most comprehensive 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 1956-57. It indicated that in the year 1955-56 Britain spent about £300 million on research and development (though this figure is subject to a margin of error). Of the total expenditure, some £185 million, or 62 per cent, was spent by private industry, mainly on Government account. Nationalised industries were estimated to have spent £4 million.

These estimates, in so far as they concerned industry, were based on the preliminary results of an inquiry conducted by DSIR, a description of which, with final results, was published in December 1958. 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). The 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 the United Kingdom, including about 2,200 research workers in agriculture and medicine.

A recent unofficial estimate<sup>1</sup> based on official figures<sup>2</sup> suggests that by 1959 the numbers had increased by about 17 per cent, roughly half of them being employed by private industry and slightly more than one-tenth by the defence departments. Expenditure on research in 1958-59 was put at £420-445 million, of which just under half was financed by private industry.

The latest official estimates to be published are given in *Industrial Research and Development Expenditure, 1958*. These estimates refer only to expenditure by or through private industry, which amounted to £300 million in 1958 compared with £185 million in 1955. Of this, less than half was provided by the Government through defence contracts in 1958, compared with a proportion of nearly two-thirds in 1955. About 95 per cent was spent in industry's own establishments and 5 per cent on payment to outside bodies such as co-operative research associations, universities and other public and private research institutions.

### 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. It is necessary, therefore, to supplement the methods generally in use—publication in learned and specialised journals, abstracting services, exhibitions,

<sup>1</sup> B. R. Williams. *Times Review of Industry, March 1960*. (London and Cambridge Bulletin No. 33.)

<sup>2</sup> *Scientific and Engineering Manpower in Great Britain, 1959*. HMSO, 1959, Cmnd. 902.

conferences, press, radio and television—by more extensive measures for improving personal contacts between industry and sources of scientific and technical knowledge.

The DSIR devotes approximately a quarter of its resources to information services. The Information Division at DSIR headquarters in London supplements the information work done at its research establishments and promotes information activities of various kinds. The Lending Library Unit in London (LLU), added to these services in 1957, is the nucleus of the new National Lending Library for Science and Technology (NLL), which is to start operations at Boston Spa, Yorkshire, in 1961. The new library, which will be in full operation in 1962, will cover all subjects in science and technology other than some branches of medicine: it will take over the responsibility for the lending service now provided by the Science Museum Library. The NLL is responsible for extending the volume of translations and of Russian scientific literature which are available. The organisation issues a 'Translations Bulletin' which contains lists of books, journals, and other scientific papers which are now available in translation, or which are to be translated in the near future. It collaborates with the National Science Foundation of the United States in arranging for translations, and it holds an extensive collection of translations of Russian scientific literature which may be borrowed.

The Association of Special Libraries and Information Bureaux (ASLIB) runs a technical information department and maintains a Commonwealth index of translations and a panel of 135 translators. The Commonwealth Agricultural Bureaux provide abstracts and an information service for agricultural science. The Agricultural Research Council publishes an *Index of Agricultural Research in Progress*, and in its annual reports gives accounts of developments in current research.

### THE PROMOTION OF THE ARTS

The preservation of Britain's cultural heritage and the promotion of literature and the arts are the active concern of a number of official and unofficial bodies. There is no Ministry of Fine Arts or equivalent organisation to formulate or administer policy in the arts, though bodies such as the Standing Commission on Museums and Galleries and the Royal Fine Art Commissions for England and for Scotland act in an advisory capacity. Government interest in the arts is expressed mainly through the provision of grants to such bodies as the Arts Council, the British Council (see also footnote on p. 171), the British Film Institute, and the Council of Industrial Design, and also to the national museums and art galleries.

Government expenditure on the arts (which, in 1938-39, amounted to a little more than £900,000) is now over £7 million. Of this total, over £3 million is the cost of the national art collections in museums and art galleries, £1.5 million the amount of the grant to the Arts Council, and more than £1 million is expenditure on preserving historic houses and their contents. In addition, under the Local Government Act, 1948, local authorities may use part of the revenue from the rates for the encouragement of the arts. Local education authorities also make grants to some schools of art, music and drama. In Northern Ireland, the Council for the Encouragement of Music and the Arts (CEMA) receives a grant from the Northern Ireland Government of £21,000 plus up to a maximum of £7,000 on a £ for £ basis on contributions from local authorities.

Unofficial institutions concerned with the promotion of the arts include many charitable trusts and foundations, e.g., 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, some of which are mentioned later in this chapter.

A development since the second world war has been the increasing support the arts are deriving from business firms. In recent years, such industrial patronage has amounted to some £50,000 annually. In addition, the Independent Television programme companies (see Chapter XV) are spending jointly over £100,000 a year on the encouragement of the arts. A co-ordinating committee has been set up to ensure that the donations of the individual companies do not overlap.

*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 directly or indirectly with these aims. The corresponding body in Northern Ireland is CEMA, the board of which consists of members nominated by the Minister of Education for Northern Ireland and the Senate of Queen's University, together with members 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 £23,767 were made for these purposes during the year ended 31st December, 1959.

*The Pilgrim Trust* was founded in 1930 by the late Edward Stephen Harkness, an American citizen. The trust, which has an income of about £170,000 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 1959 amounted to £152,000.

*The Calouste Gulbenkian Foundation* of Lisbon was established under the will of the late Calouste Gulbenkian who died in 1955. The foundation has a branch in the United Kingdom, which is responsible for the foundation's activities in Britain and in other Commonwealth countries. During 1959, grants totalling £76,500 were made to the arts in the United Kingdom. A small private committee, under the chairmanship of Lord Bridges, was set up by the foundation to examine the needs of the arts in Britain and reported to the trustees in June 1959. It recommended that greater support should be given to the arts, that there should be more scope for experiment, that the arts should be made more accessible to the public, particularly in the provinces, and that more should be done to foster appreciation of the arts among the young.

#### VISUAL ARTS

There are at present a number of British painters and sculptors of international repute as well as younger artists of great promise; and public interest in their work and that of their contemporaries overseas, as well as in that of British and foreign

artists of the past, is increasing. This wider interest in visual art has not stopped at appreciation. There is evidence of this fact in the large numbers attending evening art classes, the growth of local art groups and local exhibitions, and the support given to holiday painting schools.

The fine arts of painting and sculpture in Britain 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 1959 to the end of March 1960 the Arts Council arranged 58 separate art exhibitions in Great Britain; 342 showings of these exhibitions were given in 151 different centres. In Northern Ireland, 26 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 1960, 24 fine art exhibitions organised by the council were shown in 41 countries. The council was also responsible for British participation in five international exhibitions. Since 1948, 30 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, which celebrated its bicentenary in 1953, 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 since the war primary collections have been arranged to bring together, by style, period or nationality, masterpieces of all the arts. The National Gallery presents 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 London Museum (reopened in Kensington Palace in 1951), where the collection illustrates the history of the capital, and Hertford House, where the Wallace Collection (furniture, armour, *objets d'art* and paintings, mainly French works of the seventeenth and eighteenth centuries) is housed.

The Ministry of Education is responsible for the administration of the Victoria and Albert Museum and the Science Museum.<sup>1</sup> The other national collections are run by Trustee bodies. All are financed from Government funds. Besides meeting

<sup>1</sup> For information on the scientific museums, see page 218.

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 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. A Northern Irish Folk Museum has recently been established in Belfast. The Belfast Museum and Art Gallery is owned and maintained by Belfast Corporation but negotiations are proceeding for it to be transferred to a statutory body which will receive financial aid from the Government of Northern Ireland. In addition, a small Belfast art gallery under the control of CEMA was opened in May 1960.

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 a report every five years.

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 important 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 March 1960. In recent years there has been a notable development of 'period-house museums', in which outstanding examples of the private residences of former times have been taken over by national and municipal authorities for this purpose, as at Temple Newsam, Leeds; Aston Hall, Birmingham; and the Royal Pavilion, Brighton. Private art collections are to be seen in the historic 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 regional museum service in Britain was inaugurated for the south-west. Its objects 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 expends an average of £10,000 a year for this purpose.

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. It also produces directories, a monthly journal, and other publications.

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; the Royal Scottish Academy; the Royal Society of British Artists; the Royal Institute of Oil Painters; The Royal Society of Painters in Water Colours; the Royal Society of Portrait Painters; 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. There are, in addition, many regional societies such as the Royal Ulster Academy 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 Bond Street and other parts of the West End of London. 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. There are also exhibitions of children's art, including the National Exhibition of Children's Art sponsored by the *Sunday Pictorial*.

### **Art Education**

There are 15 colleges of art in the United Kingdom, each serving a region, 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 24 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 annual award was instituted, the Duke of Edinburgh's Prize for Elegant Design, presented to the designer of a single product chosen from the centre. In 1957, a design centre was also opened in Glasgow. In addition, the council 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. 202), 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

The Government's responsibility towards the nation's architecture is concerned with encouraging the best in new building and preserving, by legislation and in other ways, 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 Department of Health for Scotland, 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 education departments are responsible for the supervision of building for the public education service. The Ministry of Works is the department concerned with the construction and maintenance of Government 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), both bodies of experts established by Royal Warrant, 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, a department of the Ministry of Works in Scotland, carries out functions

similar to those of its English counterpart. 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 Works on any questions concerning ancient monuments. In Northern Ireland the Minister 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, which were constituted under the Historic Buildings and Ancient Monuments Act, 1953, advise the minister on the provision of grants towards the repair and maintenance of such buildings and their contents (see p. 191). 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 44 autonomous architectural societies covering the whole of the United Kingdom and most of the overseas Commonwealth. The Royal Institute has a membership of 19,000, 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 is given at 26 Schools of Architecture in the United Kingdom recognised for exemption from the RIBA Intermediate and Final examinations as well as at 15 overseas schools. There are also two Schools of Architecture in the United Kingdom where the intermediate examination is recognised and one overseas. In addition, there are 43 schools of art and technical institutes (nine full time) with facilities for the instruction of intending architects, which prepare students for taking 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, which is 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 Historic Churches Preservation Trust was formed in 1952 under the chairmanship of the Archbishop of Canterbury, in order to raise £4 million to supplement the efforts of parishes to put their churches into good repair. By the end of 1959, it had made available sums totalling £430,004 to 987 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, of which the best-known critical weekly is *The Times Literary Supplement*. State support for literature is given through the Arts Council, which assists poetry—especially poetry readings—in Great Britain. The British Council is active in encouraging a knowledge of English literature abroad. Recognition of outstanding literary merit is given in the form of literary prizes, a number of which are awarded annually, e.g., 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.

### Libraries

The largest library in Britain is that of the British Museum in London (more than 5 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 (2½ million volumes) and the Cambridge University Library (about 2½ 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 include<sup>1</sup>: the University of London Central Library,<sup>2</sup> the libraries of the universities of Edinburgh, Glasgow and St. Andrews, and Queen's University Library, Belfast; London Library (the largest public subscription library) and the John Rylands Library, Manchester; the Science Museum Library, the

<sup>1</sup> 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. 202 and 222.

<sup>2</sup> The total holding of all the libraries (college and special) of London University is about 3 million volumes.

Victoria and Albert Museum Art Library and the British Museum (Natural History) Library; the Patent Office Library, the India Office Library 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 559 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 33,673 service points; they hold over 71 million books and make more than 445 million loans a year. 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 libraries 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 reported 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 may have their public library powers withdrawn; that greater co-operation 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. Legislation to implement these recommendations is under consideration.

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.

The two principal organisations to which librarians belong are the Library Association and the Association of Special Libraries and Information Bureaux (ASLIB) (see p. 222). 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 the five-year period 1955–59, for example, British publishers issued an average total of just over 20,500 separate titles each year, of which an annual average of only some 5,700 were 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').

Some books are produced as 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,<sup>1</sup> including the university presses, notably the Cambridge University Press and the Clarendon Press. The Clarendon Press is part of the Oxford University Press, which also has a publishing department in London.

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 literature. The British Academy, which is an organisation concerned with humanistic studies and has a section dealing with literature and philology, receives a grant from the Treasury.

Interest in poetry is encouraged by the Poetry Society and by various bodies such as the Apollo Society and the Company of Nine, 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 origins of which date back to the seventh century—and the Stratford-upon-Avon Festival of Poetry. The Poetry Book Society will promote a special Festival of Poetry in London in 1961.

Among the specialist societies are the Early English Text Society, the Bibliographical Society, the Halleian 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

<sup>1</sup> For total sales and exports of books in 1959, see p. 357.



including the Old Vic Theatre Company and the Shakespeare Memorial Theatre Company, and by sending overseas exhibitions of theatrical design and lecturers on drama. The Treasury is empowered, under the National Theatre Act, 1949, to support the scheme for a national theatre by contributing £1 million to the cost of building and equipping a theatre, in London, which would operate under public auspices. In 1957, the entertainment duty on the living theatre (which raised about £1¼ million of revenue a year) was abolished.

### Professional Theatre

There are about 200 professional theatres in Britain. The centre of the professional theatre is in London, where there are some 40 principal theatres and a number of suburban theatres. With the exception of four theatres—Covent Garden, Sadler's Wells, the Old Vic and the Royal Court—these theatres 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 theatres 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 first theatre to be built in London for 25 years, the Mermaid Theatre, was opened in 1959, as was the completely reconstructed Queen's Theatre, the original of which was destroyed by enemy action in September 1940; another new London theatre, the Prince Charles Theatre, will be opened in 1961. 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). A new civic theatre in Nottingham is to be completed by 1962, others are planned for Guildford and Leicester, and a festival theatre, with an open stage, is to be built at Chichester (Sussex).

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 Shakespeare Memorial Theatre Company at Stratford-upon-Avon; the latter company celebrated its centenary in 1959. In 1956, the English Stage Company was established at the Royal Court Theatre in Sloane Square, 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, some of which have been staged subsequently in West End theatres. 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 established repertory theatres, e.g., the Bristol Old Vic Company at the historic Theatre Royal in Bristol, or they may tour the various towns and villages in the locality, playing from one to several nights in each place and using any building which can be made suitable for the purpose. The English Children's Theatre, a non-profit-making organisation, presents children's plays in London and the provinces, while the Youth Theatre, consisting mainly of schoolboy actors, presents an annual Shakespearian production. 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 Irish drama; the Belfast Arts Theatre, specialising in international drama, is to become the Belfast Arts Theatre Trust and move to a new building before the end of 1960, and Irish plays will also be presented. Both these theatres are subsidised by CEMA. Inevitably,

the work of repertory companies varies in quality but, generally speaking, the standard of both production and acting is high; many of the leading dramatists, producers, 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 (e.g., the Arts Theatre, London), the plays are not subject to the normal requirement that they must be passed by the Lord Chamberlain<sup>1</sup> before presentation.

The Theatres Act, 1843, which deals with the licensing of theatres and plays, requires all new plays to be approved by the Lord Chamberlain, 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.

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.

### **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.

The British Drama League, which was founded in 1919, operates on a basis of affiliation and individual membership. Its many services to its members 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 many matters connected with the stage, e.g., 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

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<sup>1</sup> The Lord Chamberlain, whose office dates from the fourteenth century, is the senior officer of the royal household.

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 of all kinds which have been established throughout the United Kingdom. Among the most important of such institutions are the Royal Academy of Dramatic Art (which was founded in 1904 and is now grant-aided by the Treasury, and which provides a two-year course in all branches of stage work), 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. Bristol University created a department of drama offering a course which an arts student may take as part of a general degree course; in July 1959, Bristol inaugurated the first International Festival of University Theatre to be held in Britain.

### **FILMS**

The British public possibly visits the cinema more frequently than any other people in the world. Although cinema attendance has been declining in recent years (attendances at cinemas in the United Kingdom dropped from 1,101 million in 1956 to 603 million in 1959) and the average number of cinemas in Great Britain decreased by about 840 between 1956 and 1959, there were, at the beginning of 1960, about 3,450 cinemas in Great Britain (with a total of 3.3 million seats) and another 138 cinemas in Northern Ireland. In February 1959, the first new cinema to be built in the West End of London for 20 years was opened.

About 10 per cent of British first feature films are made by, and some 35 per cent 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 on film development 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 and in those based on war experiences. Britain is once again in the forefront of film production and London is one of the most



important centres for the making of films for international markets. British films, actors and creative and technical talent are appreciated abroad as well as at home and regularly achieve success at international film events. British films are widely distributed abroad and export earnings are an important part of total earnings. 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 film 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 a number of awards at the major international film festivals. 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. These are produced through the Films Division of the Central Office of Information (COI), which commissions their production by the private companies belonging to the Association of Specialised Film Producers (a national body) and to the newsreel and television organisations. They include documentary films produced to inform audiences overseas about life in Britain and social and cultural progress. These, and other films acquired from private industry and public bodies, are distributed throughout the world by British Information Services, in English and in as many as 17 other language versions.

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 Library<sup>1</sup> and other agencies. Since 1958, the Films in the Service of Industry festivals, held at Harrogate in Yorkshire, have provided a valuable meeting place for specialists in the production and use of films.

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.

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 good films. It administers the National Film Theatre in London and the National Film Archive, runs an annual summer school, and maintains a film distribution 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 Scottish Film Council, the Scientific Film Association, the University Film Council and the Society of Film Teachers, and administers a fund for the production of experimental films.

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<sup>1</sup> The Central Film Library also makes available on hire to schools, colleges and other institutions films on many specialised subjects.

The National Film Archive contains over 7,000 films, excluding newsreels and other miscellaneous items, besides scripts, art designs, posters and 150,000 photographic stills, selected to illustrate the history and the art of the film and as significant social and historical records.

The National Film Theatre shows films of outstanding historical, artistic or technical interest; it holds a unique position as a cinema offering regular programmes which are unrestricted by commercial considerations or by the age or nationality of the films shown. Its present building, erected on the south bank of the Thames, in London, in 1957, is the first permanent national film theatre in the world.

The Society of Film and Television Arts, formed in December 1958, has as its aim to improve the standard of film and television production and to stimulate public appreciation of the arts. It was formed by the amalgamation of the British Film Academy (founded in 1947 as a private organisation, representative of senior film-makers, to foster the making of creative films) and the Guild of Television Producers and Directors, with which the British Film Academy's aims and activities were closely linked.

### **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 well-being, 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. This levy is quite separate from the entertainments duty (abolished in 1960) which was a tax charged on cinema admissions. The money raised by the levy 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. The fund was started in September 1950 on a non-statutory basis as the British Film Production Fund, known as the Eady Fund. It was based on a renewable agreement between the various trade associations, subject to Board of Trade approval. When this agreement lapsed in October 1957, the voluntary scheme was replaced by a statutory scheme with the same purpose. The Cinematograph Films Act, 1957, 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 for public showing, licensing authorities 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; the latter, who include two women, are appointed by the president. The president 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; more 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 in relation to their attendance at film shows. Cinemas which give children's shows require a special licence from the licensing authority and the authority is able to impose special conditions on such cinemas. 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 children's 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 provision is made in the Cinematograph Films Act, 1957, for the foundation to receive 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.

## 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, which was opened in 1951 in connection with the Festival of Britain; the Royal Albert Hall, Kensington, where the annual summer season of Promenade Concerts is given; and the Wigmore Hall, which is the principal recital centre.

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 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 Bach Choir, and, in Northern Ireland, 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 orchestra 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 some 800 societies.

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. They range from the famous Edinburgh International Festival of Music and Drama, which lasts three weeks and attracts many thousands of visitors, to those, such as the King's Lynn Festival, lasting 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 York Mystery Plays and 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,<sup>1</sup> which are aided by the Carnegie United Kingdom Trust and united in the Standing Conference for Amateur Music. The Rural Music

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<sup>1</sup> Some of these are voluntary committees and some are local education authority sub-committees.

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 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 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 orchestras in schools. The Students' Orchestra of Great Britain, specially formed in 1958 and 1959 from music students for performances abroad, has achieved great successes.

In schools, more children are learning to play musical instruments; and about 115,000 candidates a year (children and other students) take the examinations of the Associated Board of the Royal Schools of Music, the largest proportion (over 82,000) 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 the 78 million gramophone records sold each year, the proportion of classical music is about one-fifth. 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, which is leased by the Government<sup>1</sup> 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, amounting to 43 per cent of its expenditure, subject to a maximum of £500,000 in any one year. 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, which in January 1957 was incorporated 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 since 1945.

<sup>1</sup> The Ministry of Works acquired a 42-year lease from Covent Garden Properties Limited in 1949.

Seasons of opera and ballet are also given at the Sadler's Wells Theatre in London; a second Sadler's Wells opera company has been formed to tour opera in the provinces. At Glyndebourne in Sussex, an opera season, for which a company 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. The Arts Council manages a small operatic group (Opera for All) which specialises in introducing opera to audiences in small towns who hitherto have been unfamiliar with it. There are also a number of amateur opera clubs in London and the provinces and in Northern Ireland. 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 in Northern Ireland combines traditional dancing and mime.

The Royal (formerly Sadler's Wells), 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.



# IX. 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 about 2 per cent of the world's inhabitants, it ranks ninth. 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 nearly one-fifth 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 some 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 ships, aircraft, locomotives, motor vehicles, electrical equipment, chemicals, textiles and most types of machinery. Few countries in the world have such a high proportion of the population living in towns (80 per cent) or 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 two-fifths 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: it has been estimated<sup>1</sup> that retained imports, which were only 12 per cent of net national income at factor cost (i.e. cost after discounting the effect of indirect taxes and subsidies) in 1820, rose to 28 per cent in 1870. (The 1959 figure was 20 per cent.)

The period from 1870 to 1890 marked the peak of British industrial expansion as compared with 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.

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<sup>1</sup> Prof. E. A. G. Robinson, *Economic Journal*, September 1954, p. 458.

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 costs were lower, established themselves firmly in the large eastern markets, to a great extent replacing the higher-priced and often higher quality British product. 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 severely with British coal.

In the old-established branches of the vehicles and engineering group of industries (e.g., 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 (e.g., cars and electrical goods). Most countries were tending towards self-sufficiency, and some sought deliberately to protect nascent and even established industries by sheltering them behind 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 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, by some revival in world trade and, after 1935, by the armament programme.

### **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.

### **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 have combined with adaptation to shifts in world demand 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 now contributing a significantly larger share of the total output—itself much expanded—and providing wider employment opportunities for an increasingly skilled labour force and a growing contribution to exports. 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, and to curtail the almost continuous rise in internal prices. 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. The strong expansion in exports in later years which resulted in a substantial surplus in the balance of payments enabled import controls to be gradually relaxed. It was, however, only in 1958 that the surplus reached a level fully commensurate with Britain's external obligations; in 1959, the surplus was considerably smaller.

A persistent rise in prices was a feature of the post-war years until 1958. It stemmed primarily from an excessive pressure of demand on the nation's resources—exports, investment both at home and abroad, defence, and personal consumption—so that money incomes rose faster than production. Stability of prices is a main aim of Government economic policy. Since 1958, prices have remained relatively stable, and in 1959 and 1960 it proved possible to bring about a significant increase in output without impairing price stability, while the world-wide expansion of activity ensured a high level of demand for United Kingdom exports.

## 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, with particular reference to two problems—the balance of payments and the prevention of inflation. The sources of Tables 8 to 12 are *National Income and Expenditure, 1959*, and *Economic Survey, 1960, Cmnd. 976*.

### National Income and Employment

Between 1948 and 1959, the United Kingdom gross national product (the measure of total goods and services produced at home and net income from abroad) is estimated to have doubled from £10,446 million to £20,831 million. In real terms, that is after allowing for price changes, the increase has amounted to about 33 per cent over the same period; this is equivalent to an average annual advance of about 2 $\frac{3}{4}$  per cent. From 1956 to 1958, the need to restrain demand in order to check rising prices and safeguard the balance of payments reduced the rate of increase, but in 1959 and again in 1960 there was a strong resumption of the upward movement. In comparison with other countries, the United Kingdom's national income per head is appreciably below that of the United States and Canada and ranks slightly below that of Australia, New Zealand, Sweden and Switzerland.

Table 8 shows the distribution of total supplies of goods and services, at current prices, divided between consumers, public authorities, investment and exports; while the diagrams on p. 244 show the changes in national expenditure in 1959 compared with 1954 at average 1954 prices, and production and national income trends since 1900.

Manufacturing industry contributes nearly 40 per cent to the total output of goods and services, and together with mining and quarrying, building and contracting and public utilities (gas, electricity and water) makes up over half the total; agriculture, forestry and fisheries account for less than 5 per cent, transport and communications, together with the distributive trades, for slightly more than 20 per cent.

Output in the economy as a whole has increased by nearly a third since 1948. Industrial production—accounting for about half of total output—has risen over the twelve years by two-fifths, and in the five years from 1954 to 1959 by about 14 per



cent in manufacturing industry. There has been an appreciable improvement in living standards, the proportion of the national resources devoted to investment has been raised progressively to record levels, and a large expansion in exports has been

**CHANGES IN NATIONAL EXPENDITURE**

1959 compared with 1954 at average 1954 prices

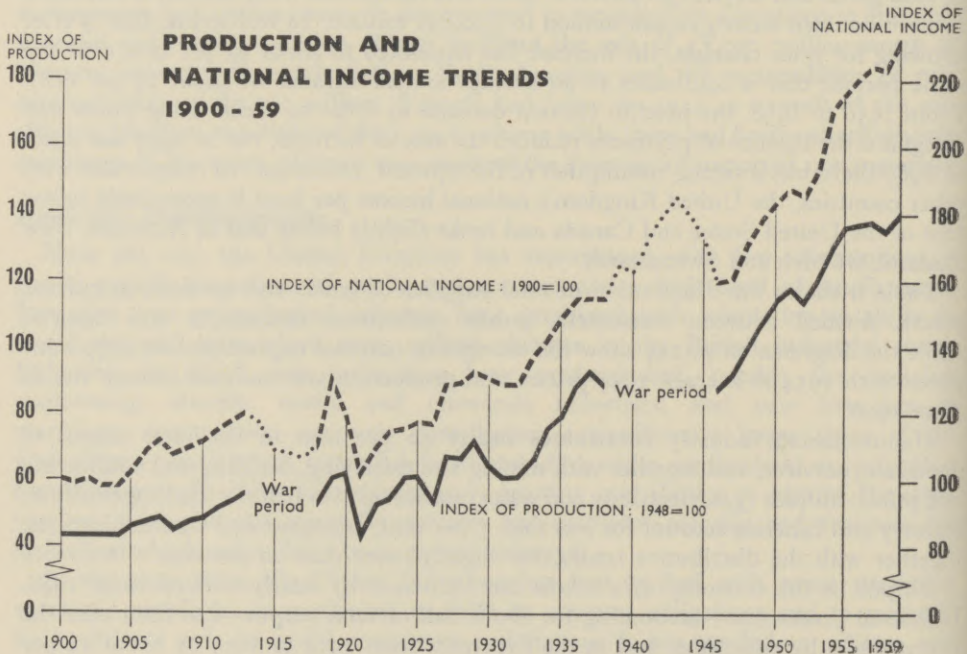
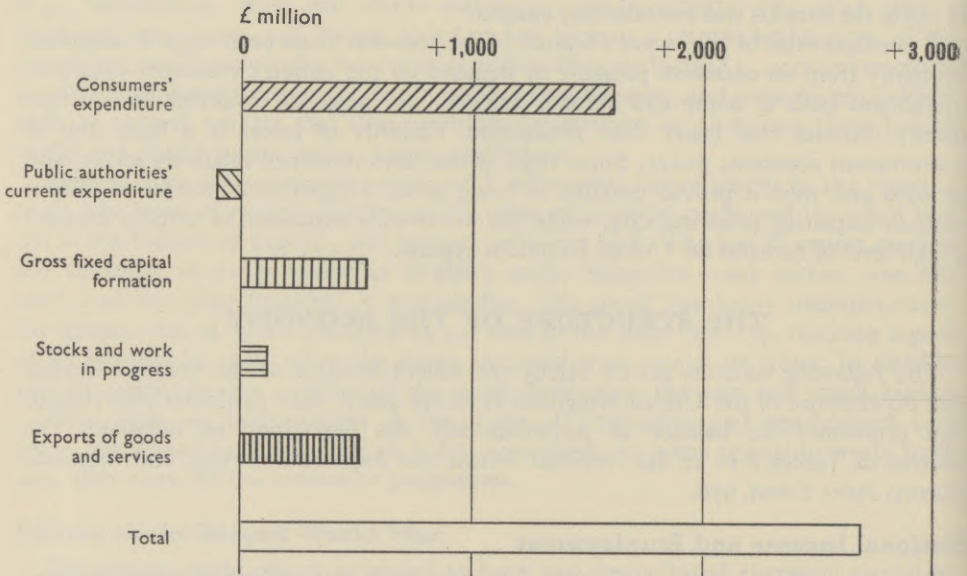


TABLE 8  
DISTRIBUTION OF TOTAL SUPPLIES OF GOODS AND SERVICES

*Percentages*

	1948	1954	1958	1959
Consumers' expenditure .. .. .	61.3	56.1	55.9	55.7
Public authorities' current expenditure ..	12.7	14.7	13.9	14.2
Gross fixed capital formation .. .. .	10.4	12.0	13.1	13.0
Investment in stocks .. .. .	1.3	0.2	0.5	0.8
Exports of goods and services .. .. .	14.3	17.0	16.6	16.3
TOTAL FINAL EXPENDITURE	100.0	100.0	100.0	100.0

achieved. Defence expenditure has been heavy, and in peak years absorbed nearly 10 per cent of the gross national product. In real terms, between 1948 and 1959, gross fixed capital formation rose by nearly 67 per cent, consumption by 27 per cent, and public authorities' current expenditure by over 27 per cent.

The total working population has risen relatively slowly; in the twelve years to the middle of 1960 it increased by about  $1\frac{1}{2}$  million (or some 7 per cent) to about 24.8 million. 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 double that of registered unemployed. There are, however, districts in which unemployment is persistently higher than average, and in 1960 the Government acquired additional powers to steer new industrial development towards such areas.

### Investment

Since the end of the war gross fixed investment has risen markedly, particularly since 1953. In 1938, fixed investment in the United Kingdom was about  $12\frac{1}{2}$  per cent of the gross national product; in 1948, 14 per cent. From 1957 to 1959, it averaged over 17 per cent. Up to 1953, investment in oil refineries, chemicals, and iron and steel, and in the housing programmes of local authorities increased particularly rapidly. Since 1954, industrial investment as a whole, and especially in manufacturing, transport and communications, and distribution, has risen to record levels, while investment in housing has declined. In 1959, the volume of fixed capital formation by manufacturing industry although 14 per cent higher than in 1954, was at its lowest for several years, but investment plans in hand suggested that expenditures in 1960 might exceed the 1957 peak.

More than 40 per cent of the total fixed investment is carried out by the central Government, the local authorities and the public corporations, the last accounting for slightly more than two-fifths of public investment, and the central Government for about one-sixth. Increases in public investment are in progress, and it is estimated that total expenditure under this head in 1960-61 will amount to £1,730 million, an increase of about £285 million, or one-fifth over the actual level of 1958-59. The

## PUBLIC AND PRIVATE FIXED INVESTMENT 1954 AND 1959

(£ million at 1954 prices)

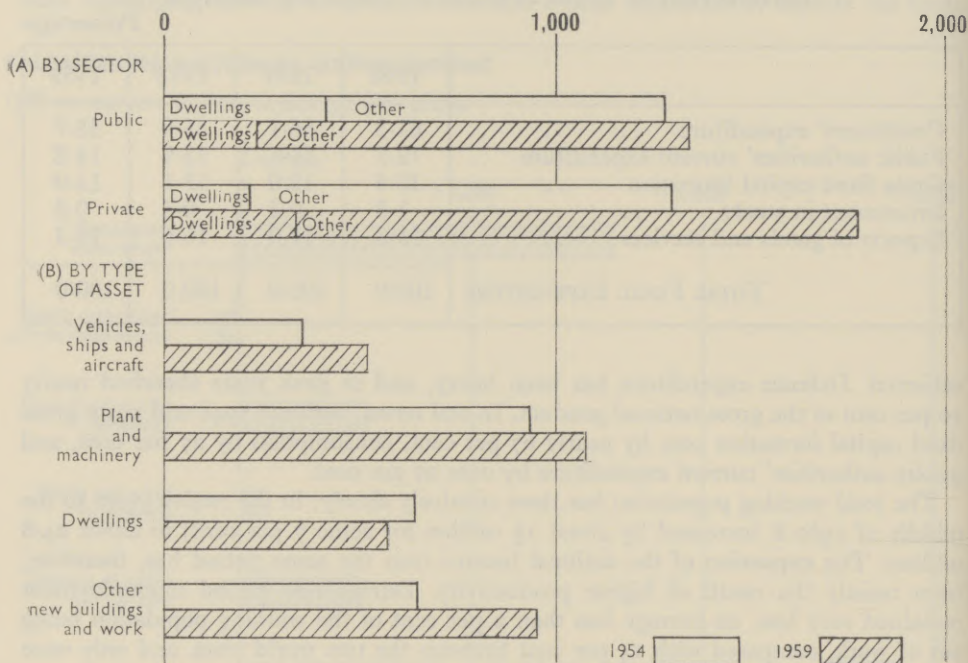


diagram above shows the division between public and private fixed investment and the pattern of investment according to type of asset in 1954 and 1959. Table 9 shows the division into industrial groups of gross fixed investment in the same years.

TABLE 9  
GROSS FIXED INVESTMENT  
(At 1954 prices)

Industrial Groups	£ million		Index Numbers of Volume (1954=100)
	1954	1959 (Preliminary)	1959
Dwellings .. .. .	644	576	89
Manufacturing industry .. ..	581	663	114
Gas, electricity and water .. ..	303	370	122
Transport and communications (a)	270	393	146
Distribution and other services (b)	328	499	152
Other (including roads) .. ..	452	616	136
TOTALS	2,578	3,117	121

(a) Excludes road goods transport.

(b) Includes road goods transport.



## Savings and the Financing of Investment

The marked growth of investment since 1954 has been made possible by a substantial expansion of personal savings (see Table 10). During the early post-war years, personal savings were very small, partly because people were making good the war-time arrears of expenditure on necessities such as clothing and household goods; most of the saving, therefore, was carried out by the Government through its Budget surpluses and by companies. But the next few years brought a remarkable growth in private savings, which in 1959 reached the peak total of £1,450 million net, more than double the 1954 level and equivalent to 36 per cent of total savings. In the period 1948-51, on average only about 2 per cent of disposable personal income was saved, but by 1959 the proportion had risen to about 9 per cent.

The rise in personal savings has taken various forms. A substantial volume has come from life assurance premiums and other forms of contractual savings such as superannuation funds. The National Savings movement (which in 1959 reached the record peace-time level of £394 million) and building societies (the trend towards house purchase by means of mortgages reflecting the growth of private house ownership) have also been significant sources of savings.

TABLE 10  
SAVINGS IN THE UNITED KINGDOM (a)

£ million

	1955-57 (Average)	1958	1959
Persons .. .. .	1,155	1,260	1,449
Companies .. .. .	1,794	1,716	1,883
Public corporations .. .. .	178	159	193
Central Government and local authorities	572	734	651
TOTALS	3,699	3,869	4,176

(a) Gross saving, i.e. before providing for depreciation and stock appreciation and for tax, dividend and interest reserves.

## Public Authorities

Expenditure by the central Government, local authorities and the National Insurance funds has expanded appreciably in comparison with pre-war years. The main factors in this trend have been the growth of the social services and, particularly since 1952, a high level of defence expenditure. The latter after being held at around £1,550 million for several years is to be increased in 1960-61; it accounted for about 20 per cent of the expenditure of the public authorities in 1959 against 27 per cent in 1953. Government current expenditure (excluding National Insurance funds) as a percentage of the gross national product has dropped from 31 per cent in 1948 to 26 per cent in 1959.

The expansion of the national income has enabled tax revenue to increase by over one-quarter since 1953, despite several reductions in taxation.

Table 11 shows how the public authorities collected and spent their revenue, including national insurance and health contributions, in 1959.

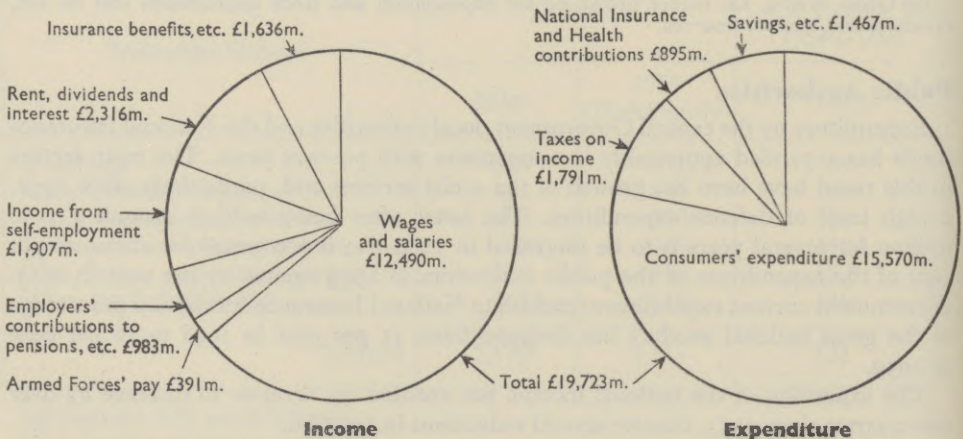
TABLE 11  
COMBINED REVENUE ACCOUNTS OF PUBLIC AUTHORITIES IN 1959

Revenue	£ million	Per cent	Expenditure	£ million	Per cent
Taxes on income and capital	2,990	38	Central Government current expenditure on goods and services:		
Taxes on outlay—alcohol, petrol, purchase tax, etc.	2,485	32	Military Defence .. ..	1,553	20
National Insurance and Health contributions ..	895	11	Health .. ..	674	8½
Rates .. ..	710	9	Other .. ..	502	6½
Rent, dividends, interest, etc. .. ..	611	8	Local authorities' current expenditure on goods and services .. ..	1,235	16
Gross trading income ..	153	2	Subsidies and grants ..	2,150	27
			Interest on national and local debt .. ..	922	12
			Surplus .. ..	808	10
TOTALS	7,844	100	TOTALS	7,844	100

### Personal Incomes and Consumer Expenditure

Incomes from employment in 1959 totalled £13,864 million (compared with £9,112 million in 1952) and accounted for about 70 per cent of total personal incomes against 60 per cent in 1938; for rent, dividends and interest the corresponding percentages are 11½ and 22½. The diagram below shows the composition of personal incomes and expenditure in 1959. About one-third of all incomes after tax are in the £250 to

### PERSONAL INCOME AND EXPENDITURE 1959



£499 a year range, and a further one-third in the next range, £500 to £749. Incomes of £2,000 and more a year accounted for only 4 per cent of aggregate personal income after tax.

Consumer expenditure has risen steadily in real terms, i.e. after discounting the effect of price changes. By 1948, it had reached approximately the same total volume as in 1938. In 1959, consumer expenditure was over 27 per cent higher than in 1948; and 13 per cent higher than in 1954 (as shown in Table 12), including an increase of 4 per cent over 1958. The principal long-term trend is the marked rise in outlays on motor vehicles and, to a lesser extent, on other durable goods. In 1959, these two groups accounted for 9 per cent of consumer expenditure, and for about one-third of the total increase over the previous year. The proportion spent on food, where the trend is towards greater consumption of both higher quality and pre-packaged foodstuffs, is fairly constant at slightly under one-third of the total.

TABLE 12  
CONSUMER EXPENDITURE IN THE UNITED KINGDOM  
(At 1954 Market Prices)

Category	Expenditure		Increase	
	£ million		£ million	Per cent
	1954	1959	1954-59	1954-59
Food .. .. .	3,782	4,180	398	11
Alcoholic drink .. .. .	818	931	113	10
Tobacco .. .. .	855	950	95	10
Housing, fuel and light .. .. .	1,539	1,620	81	5
Clothing and footwear .. .. .	1,174	1,377	203	15
Durable goods .. .. .	844	1,237	393	46
Other goods and services .. .. .	3,015	3,339	324	10
TOTALS	12,027	13,634	1,607	13

### 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. In the two years to the middle of 1960, however, the retail price index remained stable. The wholesale price index, partly as a result of the lower costs of imports, has shown only a slight rate of increase since 1954. Over the period 1948 to 1959, the rise in retail prices was between 50 and 60 per cent. Wage rates over the same period rose by about 75 per cent and average weekly industrial earnings have about doubled.

In the first six years after the war, the general upward movement of costs and prices was in part the result of the rapid increase in import prices, no less than 50 per cent between 1948 and 1951, although controls held in check the extent of the upward trend in food and some other prices. This upward trend continued, however, after 1951, although import prices fell. Over the whole period since the war, 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 United Kingdom Government throughout the period to counter this gradual inflation. The main weapons used since 1955 have been the prevention of excessive demand by monetary measures and appeals for voluntary restraint in increases in wages and profits. The rapid growth of money incomes continued until 1957 and has contributed, at times, to lack of confidence in, and occasional speculation against, sterling.

In the autumn of 1957, severe measures, including an increase in the Bank rate to 7 per cent, were taken to halt the upward drift in costs and prices. Confidence in sterling was restored, and during 1958 wages and salaries rose less than in previous years. In 1959, a policy of expansion again became feasible, and the second half of the year saw a sharp growth in business activity without any upward movement in prices.

During the first half of 1960 the economy was in a more secure position than for some years. The lengthening of order books and the almost full utilisation of industrial capacity, combined with increasing overseas commitments, however, caused the authorities to impose monetary restrictions, by way of increases in Bank rate, controls on the rate of expansion of bank advances and on hire purchase transactions, in order to curb any excessive growth in demand.

### **Overseas Trade and Payments**

The overseas trade of the United Kingdom has undergone a radical transformation since 1945. Exports have expanded rapidly: the pre-war volume was almost regained in 1946; since then it has doubled. At the same time both the commodity composition of exports and their geographical distribution has changed. The engineering and vehicles industries, in which there has been a rapid development of new processes and products, in 1959 provided 44 per cent of total exports, compared with an average of 20 per cent in 1935-38 and 38 per cent in 1954. The proportion of exports going to North America has been raised from 10 per cent in 1938 to 17 per cent in 1959.

Between 1954 and 1959, the volume of imports rose by 22 per cent and that of exports by 16 per cent, while the terms of trade (the relation of export prices to import prices), became more favourable, without, however, restoring the 1938 relationship. Invisible earnings from shipping, commerce, the tourist trade, investment income and other sources have also improved considerably, and the net surplus on current account in 1958 amounted to £349 million; it also included the first surplus on visible trade since the war and probably for many years before 1939, amounting to £98 million.

The United Kingdom needs a substantial surplus on external current account, sufficient not only to meet all its overseas commitments and obligations (including the repayment of the North American post-war loans), but also to maintain and increase long-term investment overseas, particularly in the Commonwealth. Traditionally, Britain has been a heavy exporter of capital and, since 1945, despite severe burdens on resources strained by war, the outflow has been maintained at a high level. In the years 1954-59, net long-term overseas investment has averaged more than £200 million a year, or over 1 per cent of the national income. Moreover, the United Kingdom has recently undertaken to raise substantially its assistance to the economically less developed countries, and this may require about £150 million in 1960-61.

It is also necessary to improve the external monetary position, that is to say, the ratio of gold and foreign currency reserves to external liabilities. In 1958, rapid progress was made in building up the reserves, which increased by £284 million.

In the following year they fell by £119 million, although during the year payments in gold to the International Monetary Fund (IMF) and for the repayment of the Export-Import Bank loan amounted to £220 million. Overseas liabilities to other countries, in the form of sterling balances, rose by £146 million to £3,499 million. At the end of June 1960, the reserves stood at £1,033 million.

The renewed strength of sterling was underlined by the introduction, at the end of 1958, of convertibility for current account sterling held by non-residents, and by the absence of any adverse movements against sterling in the foreign exchange markets as a result of steps by the United Kingdom, during the latter part of 1959, to abolish almost all the remaining quota restrictions on imports and controls on other current external payments.

# X. INDUSTRY

## ORGANISATION AND PRODUCTION

The United Kingdom was the first country in the world to become highly industrialised. Eleven 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—e.g., those near to big consumer markets and plentiful supplies of labour. 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—coalmining, 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 (see p. 256), and discouraging further industrialisation in congested areas such as Greater London and Greater Birmingham. A considerable expansion and diversification of industry has, in fact, taken place in these areas as a result of these policies, allied to the war-time dispersal of industry and the widespread demand for new factory premises over the past decade.

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, particularly since the first world war, many smaller and more widely dispersed centres of industry have grown up, notably in southern England. A brief description of the location of British industry, grouped according to broad geographical areas, is given below.

#### *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, and 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). The geographical region of Greater London (see p. 15), including the urbanised areas within 40 to 45 miles of Charing Cross, has a working population of over 5 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 all these industries and the average size of manufacturing firms is well below the national average (particularly in the County of London). London, especially its outer ring, is also an important area for light engineering and chemicals 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 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 and other industries. Plymouth has an important naval dockyard and several light industries. The west of England is also noted for its wool cloths.

#### *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 an expanding steel industry originally based on local deposits of iron ore, and at Peterborough there are several large engineering works. The richest coalfield in Britain 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, probably more important to the area today than cotton. 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 important industrial towns such as Warrington with its metal industries, 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 and a great commercial centre and, after London, the greatest centre for food processing, especially flour milling and sugar refining. 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 (see p. 256). Barrow, in the north-west of the county, is a well-known shipbuilding 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 shops, 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 manufacturing structure has been greatly diversified since 1937, are mining and other machinery, rolling mill plant, machine tools, ropes, glass and scientific instruments.

*Wales*

Although coalmining, including the extraction of special coals such as steam coal and anthracite, remains the chief industry of South Wales, the area today produces

many categories of capital and consumer goods. 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 (see p. 256). 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, whose capital is Glasgow, is Britain's largest shipbuilding and marine engineering centre. The steel industry, specialising in plate and heavier products, is mainly in the Motherwell area. A variety of engineering products, such as earth-moving equipment, locomotives, air-conditioning plant, industrial valves, food-processing machinery and commercial vehicles, are manufactured on Clydeside. The Scottish coalfields of the Lothians, Fife, Ayr, and Lanark produce about one-tenth of Britain's coal, but the seams in the last named field are gradually becoming exhausted.

Edinburgh, the capital of Scotland and its second largest city, has printing, brewing 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 woollens. The north of Scotland possesses Britain's only significant resources of hydro-electric power.

### *Northern Ireland*

A shipyard which is the largest in the United Kingdom, and one of the largest in the world, is located at Belfast, where there is also a large aircraft construction establishment. In addition to marine engineering, Northern Ireland has a range of other engineering activities, and traditional industries of the area include linen, shirt-making, ropes, and tobacco.

## **Distribution of Industry Policy**

Government policy is particularly concerned with the distribution of industry. 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 5,000 square feet or more 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. An important result of the use of these powers has been to slow down 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 (see p. 242); 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 certain 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 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 the 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.

Since the passing of these Acts, the pattern of local unemployment has changed. The general employment position has remained much better than pre-war, while the special problems of some parts of the development areas have, by and large, disappeared partly as a result of Government's action. On the other hand, employment problems have 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 in July 1958 new powers under the Distribution of Industry (Industrial Finance) Act, 1958, which enabled the Treasury, acting on the advice of the Development Areas Treasury Advisory Committee (DATAC), 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. Between July 1958 and the end of March 1960, the Treasury provided assistance, to a total value of over £9 million, to 165 undertakings in Great Britain. This assistance was expected to lead to the creation of 13,500 new jobs.

The legislative basis of the Government's powers to alleviate local unemployment has now been simplified and strengthened by the passing of the Local Employment Act, 1960, which came into effect on 1st April, 1960. Under the 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 in these districts. Specifically, the Board can build factories for leasing or sale on favourable terms; make a capital grant towards the cost of an industrialist's own factory; and make loans or grants towards working capital or the cost of initial 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 because, under the Northern Ireland constitution, the matters it deals with are the concern of the Northern Ireland Parliament, which has passed its own legislation to encourage industrial expansion and diversification. The Northern Ireland Government builds factories for renting or purchasing on favourable terms and provides grants and loans for new industrial undertakings, and the Board of Trade gives Northern Ireland

priority as if it were a development district for the purposes of encouraging and guiding new or expanding industrial development. As a result, since 1945, 141 firms have started production for the first time in Northern Ireland and 93 schemes of expansion have been put into effect. These new firms and expansion schemes are already providing employment for 38,000 people. The United Kingdom Government also gives manufacturers in Northern Ireland, as in development districts in Great Britain, some preference in placing Government contracts.

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 Counties 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, the United States 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. In Scotland, 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. In Wales, there are several voluntary associations concerned with the needs of Welsh industry 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, there are a number of industrial development associations concerned with studying the industrial needs of certain regions or areas and with trying to attract suitable industry to them. 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 700,000 employees; Imperial Chemical Industries Ltd., a limited liability company which, with its subsidiaries, employs about 110,000 persons in the United Kingdom; and the Co-operative Wholesale Society Ltd., a co-operative society with some 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. Since 1951, however, most of the steel industry and the road haulage services of the British Transport Commission have been returned from public to private ownership. 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 pp. 263-4). 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 established<sup>1</sup> 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 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, who has full powers of dismissal.

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.
- Cable & Wireless Limited.
- The British Transport Commission.
- The Ulster Transport Authority.
- The British Overseas Airways Corporation.

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<sup>1</sup> 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.



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 pp. 305-309), is operated as a single co-ordinated enterprise under the direction of the National Coal Board.

Nearly all other mining and quarrying (e.g., iron ore, sand, gravel, chalk, limestone, salt, tin, slate, oil shale and china clay) is undertaken by private enterprise, usually owned and operated by limited liability companies. About 75,000 workers are employed in mining and quarrying, excluding coalmining.

### *Manufacturing*

Most manufacturing is in the hands of private enterprise. Some exceptions are 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.

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 April 1959, 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 1959, establishments with 1,000 or more employees were found to employ 2,610,000 persons, over ten per cent more than in 1953 and more than twice as many as in 1935. In addition, there are some 150,000 manufacturing establishments with fewer than 11 employees and in these a total of about 1.1 million workers are employed.

There are no general surveys of the size of manufacturing firms comparable with the survey of establishments. The size of establishments is not in itself an indication of the size of manufacturing firms, as a single firm may own several establishments, not all of them necessarily engaged in the same or similar activities. Moreover, one firm can control a number of subsidiary companies. There are in all some 350,000 registered companies in the United Kingdom, of which about 16,000 are public companies;

a large proportion of these companies are engaged in manufacturing. Evidence suggests that nearly half of all manufacturing employees are in the ten per cent of all manufacturing establishments operated by some 2,000 public companies quoted on the stock exchanges. 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.

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 built for them under contract by specialist firms.

An account of some of the principal manufacturing industries is given on pp. 327-358.

### *Building and Civil Engineering*

In building and civil engineering, large-scale work is usually carried out by private contractors. Since the end of the second world war, most new houses have been built by firms under contract to local authorities, but the majority are now built on private orders, or for sale (see p. 179).

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 half of the firms employ fewer than twenty employees. For a fuller account of the building and civil engineering industries see pp. 324-27.

### **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.
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 is no collective agreement 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 prices 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 270 national federations and probably about 1,600 other 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. 469).

The number of manufacturers' associations concerned with providing common services and regulating prices and trading methods is not known precisely, but according to a survey carried out by Political and Economic Planning 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 7,500 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 Union of Manufacturers* (NUM) and the *Association of British Chambers of Commerce*. The members of NUM 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 for promoting the interests of local industry and commerce. The FBI, the NUM 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, 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 and agricultural machinery in England and Wales; fisheries and 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 Works	.. .. .	Building, civil engineering and building materials.
Ministry of Housing and Local Government		Housebuilding.
Ministry of Health	.. .. .	Medical and surgical goods.
Scottish Agriculture and Fisheries Department		Agriculture and horticulture in Scotland; Scottish fisheries.
Scottish Home Department	.. .. .	Scottish economic development generally in conjunction with the Board of Trade and other Great Britain departments.

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.

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 Ministry of Housing and Local Government, acting through local planning authorities, has powers to control the use of land (see pp. 185-6). 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. Its regular publications are: the *Monthly Digest of Statistics, Economic Trends* (monthly), 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. 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. In recent years, statistical information about the United Kingdom has been made fuller and more quickly available in accordance with a plan announced by the Chancellor of the Exchequer in 1956. Estimates of national income and expenditure and the balance of payments are now published quarterly as well as annually; up-to-date information on the trends of profits and of personal income and expenditure is being obtained by means of sample surveys; additional information on recent and possible future trends

in investment is obtained, both by sample surveys and returns from building and civil engineering firms about new contracts; and quarterly estimates of the value of stocks in manufacturing industry and in the wholesale trade have been introduced.

To ensure that industry is fully aware of Government policy and also that policy is framed with a full knowledge of industry's needs and difficulties, a number of consultative bodies were set up representing Government, employers' associations and trade unions. Among the most important of 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.

An important body, which is purely advisory to the Government rather than a channel of communication with industry, is the *Economic Planning Board*. It was established in 1947 to advise on economic policy; its proceedings are confidential. The chairman of the board is one of the two Permanent Secretaries to the Treasury, and its membership includes representatives of the Treasury, the Board of Trade, the Ministry of Power and the Ministry of Labour, and nominees of the Trades Union Congress, the Federation of British Industries and the British Employers' Confederation.

These consultative bodies approach the study of problems from a broad national point of view. There are, in addition, consultative 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, 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.

### **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 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 financial arrangement is that the board is required to conduct its business so that receipts at least balance outgoings over a period of years. The responsible minister is usually empowered (subject to Treasury approval) to say what shall be done with any surplus should the boards make a profit. As regards finance of capital expenditure, the present

system is that such finance is 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 after outstanding loans have been repaid.

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 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 March 1957. The terms of reference of the committee are to examine the reports and accounts of the nationalised industries established by statute, whose controlling boards are appointed by the appropriate Ministers of the Crown and whose annual receipts are not wholly or mainly derived from money provided by Parliament or advanced by the Exchequer. The first report of the select committee, published in October 1957, dealt with the two Scottish electricity boards and also discussed ministerial control of the nationalised industries. Later reports, published in 1958 and 1959, respectively, related to the coalmining industry and the airways corporations. A special report, in July 1959, called attention to the size and complexity of the committee's job, and asked that it should be provided with additional help from persons with expert qualifications.

### 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 it had exceeded the 1948 level by a further 27 per cent. The course of production, employment and output per man-year from 1954 to 1959 is shown in Table 13.

TABLE 13  
PRODUCTION AND EMPLOYMENT AND OUTPUT PER MAN-YEAR IN INDUSTRY, 1954-59  
(1954=100)

	Industrial Production	Employment in Industry	Output per Man-year
1955	105	102	103
1956	106	103	103
1957	107	103	104
1958	106	101	105
1959	112	101*	111*

\* Provisional figures.

Source: *Economic Survey*, 1960.



Partly because of measures taken to check inflationary trends, production from 1955 to 1958 showed only small changes. Industrial capacity did, however, increase fairly steadily during this period. Thus, when in the latter part of 1958 it was judged safe to withdraw most of the restrictions on home demand, imposed since 1955, production and productivity increased sharply. The increase in 1960 is likely to be on a reduced scale compared with 1959, as the volume of unused capacity and resources available is much smaller.

Between 1954 and 1959 increases in production of 30 per cent or over were recorded in the electronics, electrical engineering and vehicles industries; of over 25 per cent in chemicals; and of over 21 per cent in glass. Consumption of electric power over the same period rose by nearly 45 per cent.

The promotion of productivity is regarded as primarily a matter for industry itself. Employers' associations and trade unions are engaged in activities to raise industrial productivity. The former often provide technical assistance and conduct market surveys. The National Union of Manufacturers (NUM) 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 November 1952 to continue and develop the work of the Anglo-American Productivity Council which, between 1948 and 1952, sent productivity teams, made up of representatives of management, technicians and operatives, 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 Union of 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.

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 a Personnel Management Advisory Service, which advises industrial concerns on questions of personnel management. The Department of Scientific and Industrial Research, whose chief purpose is to promote the researches which are the main basis of the long-term growth of efficiency, is also concerned directly with research into such factors as productivity measurement techniques, production engineering and operator fatigue which immediately affect productivity; it also provides technical advisory services. The Ministry of Education is responsible for the technical colleges, at which courses are available in such subjects as work study and industrial engineering. The Ministry of 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 British farming industry; these include the National Agricultural Advisory Service, the Agricultural Land Service, and the Veterinary Service.

### Management

A factor contributing to the growth of productivity in British industry has been the development of new methods of management. During the present century, and particularly during and since the second world war, there has emerged in the United Kingdom, as elsewhere, a growing awareness of the importance of management as a subject requiring special skills and knowledge. This has been stimulated by the increasing pace of technical, organisational and social change, and by the need to compete successfully in world markets in the face of rising production costs. In addition, increased attention is being paid to human relations in industry, and to the importance of communication between management and labour.

Many organisations are contributing to the growing knowledge and appreciation of the wider functions of management. They include institutes and societies concerned with specialist subjects of interest to managers, such as industrial psychology and industrial welfare; associations of those who work in particular fields of management, such as sales managers; and professional bodies whose members may be managers 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.

Facilities for management training at all levels have been much extended. Education for management is developing mainly in four ways:

- (1) a national scheme, for the syllabus of which the BIM and the Ministry of Education are jointly responsible, operated through technical and commercial colleges. The scheme is being revised and under the new arrangements, starting in the autumn of 1961, ordinary and higher national certificates in business studies and, at a much higher level, diplomas in management, will be 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 (e.g., 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.

There are probably between 400,000 and 500,000 persons who hold managerial posts in industry and commerce in the United Kingdom, and only a minority of them are as yet members of any management body or have received systematic training in the principles of management.

The growing number of firms and individuals working as management consultants—more than 1,500 in 1959—and the use of the services of independent management selection firms in the appointment of senior staff are indications of the changing attitude towards the science of management in Britain.

### **Monopolies and Restrictive Practices**

Competition may be limited 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 examination and control of restrictive agreements. It requires the entry on 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 includes laymen but is presided over by a High Court Judge. It is 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 their restrictions confer on the public one or more of the benefits set out in the Act, that these benefits outweigh the disadvantages of the restrictions and that the degree of restriction is not unreasonable, the agreement is declared void. The court can make orders preventing the parties from operating their agreement, or from making new arrangements having the same effect. The first full hearing before the court took place in October 1958, and in the following eighteen months ten cases came before it.

Agreements relating exclusively to exports are not subject to this procedure but have to be notified to the Board of Trade.

Monopolies and other arrangements which are not within the scope of the Restrictive Practices Court 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, subject to the approval of Parliament. The commission was originally set up by the Monopolies and Restrictive Practices (Inquiry and Control) Act, 1948, under the title of the Monopolies and Restrictive Practices Commission. Prior to the passing of the 1956 Act it 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.



One form of restrictive practice, the collective enforcement of resale price maintenance by the use of stoplists or boycotts, was prohibited 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.

## 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 over 4 per cent of those in civil employment, provides about 4 per cent of the gross national product, and uses 48 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 29·5 million acres of farming land is classified as rough grazing, but in Scotland the proportion is about three-quarters (12·5 million out of 16·8 million acres). In the United Kingdom as a whole there are 30·9 million acres under crops and grass. Improved land and rough grazing together represent 80 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.

### 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. Estates duties have been a principal factor in the breaking up of estates, and what remains of the original estates is usually managed by the owner himself. 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. Nearly half the farms in Great Britain today are owner-occupied.

Although the average size of farms in Britain is about 68 acres of crops and grass, many of the smaller holdings do not provide a full livelihood for the occupier. Estimates indicate that in England and Wales about 155,000 of the 356,000 agricultural

holdings provide only part-time work, but they only account for a little over 5 per cent of the area under crops and grass. Of the 200,000 full-time holdings, about two-fifths are over 100 acres and about 56,000 in the range of 50 to 100 acres. 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 and very 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 holdings varying from a few acres to 300-400 acres. Most of these holdings are occupied by 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. The map on p. 270 shows that 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 so widely dispersed amongst agricultural crops that it is not possible on a map of the scale employed to show their distribution. 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 south-east of England, there are large tracts where, although much of the land is kept under the plough, the rearing and/or 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 have a similar pattern, 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, dairying and mixed farming are practised throughout the country, but stock raising only in isolated areas.

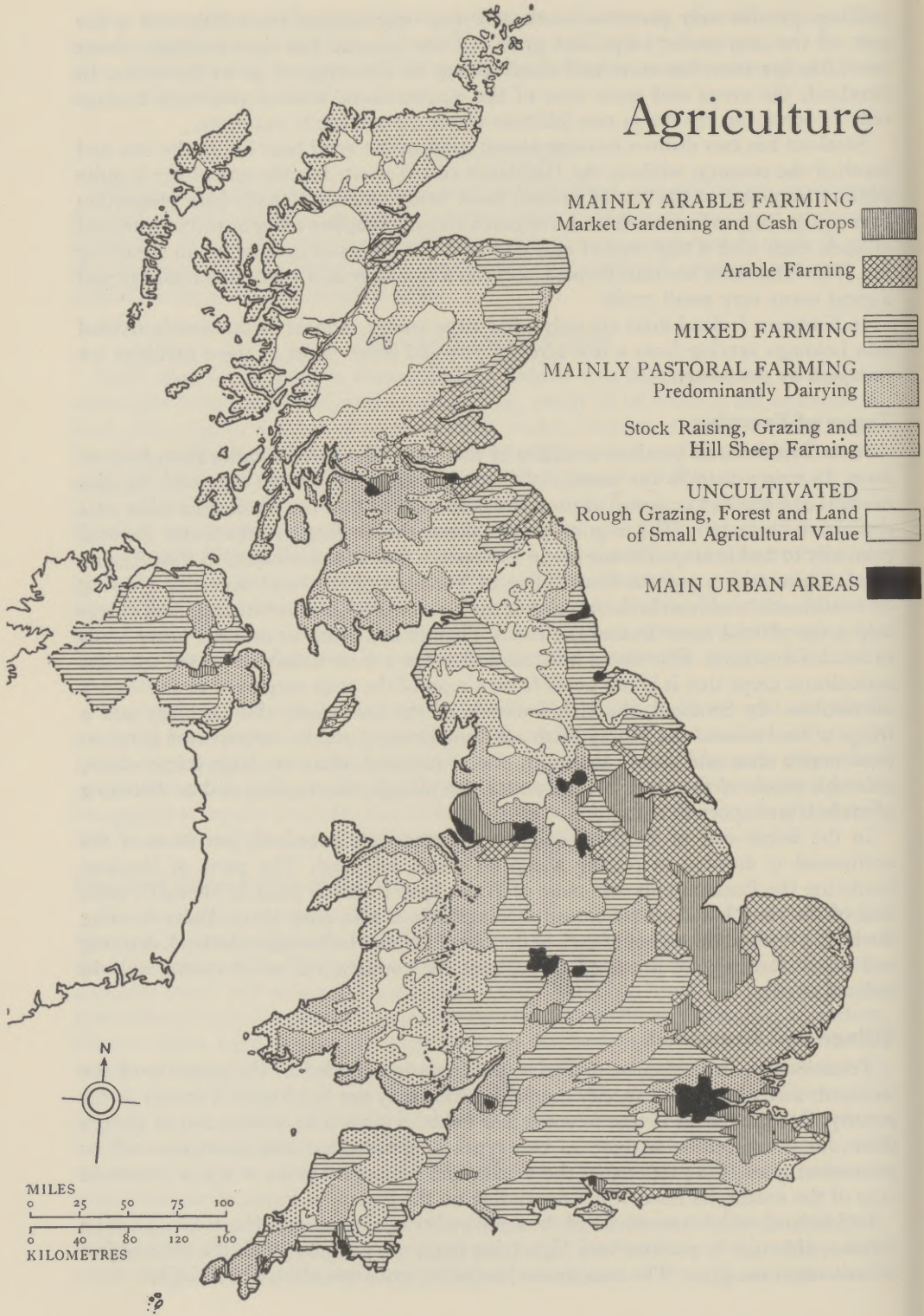
### **Tillage and Grassland**

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.

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.



# Agriculture





The situation during the 1939-45 war called for a wholesale 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. 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 leys. The western counties of England show a heavy bias towards cereal crops with longer leys; 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 4.4 million acres in Scotland, only about a quarter is in permanent grass, against about two-fifths in temporary grass; while in Northern Ireland over a half is permanent grass and about one-quarter temporary grass.

TABLE 14  
USE OF AGRICULTURAL LAND IN THE UNITED KINGDOM, 1939-59(a)

*Million acres*

	1939	1944	1958	1959
Wheat .. .. .	1.8	3.2	2.2	1.9
Barley .. .. .	1.0	2.0	2.8	3.1
Oats .. .. .	2.4	3.7	2.2	2.0
Mixed corn .. .. .	0.09	0.4	0.3	0.2
Rye .. .. .	0.02	0.1	0.02	0.01
All cereals .. .. .	5.3	9.4	7.5	7.3
Potatoes .. .. .	0.7	1.4	0.8	0.8
Sugar beet .. .. .	0.3	0.4	0.4	0.4
Fodder crops .. .. .	1.3	2.0	1.3	1.1
Fruit .. .. .	0.3	0.3	0.3	0.3
Vegetables .. .. .	0.3	0.5	0.4	0.4
Other crops .. .. .	0.2	0.4	0.1	0.2
Bare fallow .. .. .	0.4	0.2	0.3	0.4
Total tillage .. .. .	8.8	14.6	11.2	10.9
Temporary grass (b) .. .. .	4.1	4.7	6.4	6.8
Total arable land .. .. .	12.9	19.3	17.5	17.8
Permanent grass .. .. .	18.8	11.7	13.5	13.1
TOTALS: <i>Crops and Grass</i> .. .. .	31.7	31.0	31.0	30.9
<i>Rough Grazings</i> .. .. .	16.5	17.0	16.9	18.3(c)

Source: *Monthly Digest of Statistics*.

(a) At the annual June census.

(b) Includes lucerne, except in 1939 when it was included in 'other crops'.

(c) Includes the total area of deer forests in Scotland, and is therefore not comparable with figures for earlier years.

**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. 280-291.

In the year 1930 the bottom of a long depression in British agriculture was reached. 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.

By the outbreak of war in 1939, the long depression from which the industry had suffered had resulted in a general decline in agricultural activity. Much land once in arable cultivation had been allowed to 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 beef and sheep stocks, and the number of pigs and poultry has greatly increased.

TABLE 15  
LIVESTOCK IN THE UNITED KINGDOM, 1939-59 (a)

	1939	1944	1958	1959
Dairy cattle .. .. .	3.9	4.4	4.6	4.7
Other cattle .. .. .	5.0	5.1	6.3	6.6
Sheep .. .. .	26.9	20.1	26.1	27.7
Pigs .. .. .	4.4	1.9	6.5	6.0
Poultry .. .. .	74.4	55.1	99.7	106.6
Horses .. .. .	1.1	0.9	0.2	0.2

*Millions*

(a) At the annual June census.

Source: *Monthly Digest of Statistics*.

**Agricultural Production**

The effect of these changes may be judged by reference to the total production of the major agricultural commodities, shown in Table 16.

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, output of pigmeat and of eggs had increased in 1958-59 by 73 per cent and 87 per cent, respectively, this increase, and also that of milk, being

TABLE 16  
 AGRICULTURAL PRODUCTION IN THE UNITED KINGDOM  
 (Years beginning 1st June)

Product	Unit	Pre-war average(a)	1946-47	1958-59	1959-60 (forecast)
<i>Crop Production:</i>					
Wheat .. .. .	'000 tons	1,651	1,967	2,711	2,786
Rye .. .. .	"	10	39	21	13
Barley .. .. .	"	765	1,963	3,170	4,038
Oats .. .. .	"	1,940	2,903	2,138	2,187
Mixed corn .. .. .	"	76	350	275	262
Potatoes .. .. .	"	4,873	10,166	5,556	6,850
Sugar beet .. .. .	"	2,741	4,522	5,742	5,510
<i>Livestock Products:</i>					
Milk .. .. .	mill. gals.	1,556	1,653	2,214	2,264
Eggs (b) .. .. .	'000 tons	385	322	719	773
Beef and veal .. .. .	"	578	537	786	770
Mutton and lamb .. .. .	"	195	141	203	241
Pigmeat (b) .. .. .	"	435	211	753	695
Wool (clip) .. .. .	"	34	27	37	37
<i>Index of net agricultural output</i>				(prov.)	(forecast)
Agricultural holdings (c) ..	—	100	119	159	166
Total (b) .. .. .	—	100	124	161	168

Source: Agricultural Departments and *Cmnd.* 970.

(a) Average of 1936 to 1938 for crops and average of 1936-37 to 1938-39 for livestock products.

(b) Includes estimated production from units under one acre.

(c) In Great Britain holdings of over one acre only; in Northern Ireland one acre and over from 1955-56, for earlier years  $\frac{1}{4}$  acre and over.

partially attributable to heavier imports of feedingstuffs in recent years. It was estimated that about 6 million tons of concentrates would be imported in 1959-60, more than double the volume in 1952-53, and a further 2 million tons are available as by-products of imported grain and oil-seeds.

The index of net output of agricultural production was forecast to reach a peak figure of 168 in 1959-60 (pre-war average = 100).

### Food Supplies—Home Grown and Imported

Since 1939 the population of the United Kingdom has increased by some 4 million, or approximately 8 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. 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 17.

TABLE 17  
PERCENTAGE OF TOTAL U.K. FOOD SUPPLIES PROVIDED BY  
HOME AGRICULTURE

Food Product	Pre-war average	1945	1951	1958	1959 (prov.)
Wheat and flour for human consumption (as wheat equivalent)	12	32	24	19	20
Oils and fats (crude oil equivalent)	16	7	10	18	15
Sugar (refined value) .. ..	18	32	23	18	26
Carcase meat and offal .. ..	51	50	65	65	64
Bacon and ham (excluding canned)	32	38	49	42	41
Butter .. .. .	9	8	4	8	5
Cheese .. .. .	24	10	18	45	39
Condensed milk .. .. .	70	59	63	98	95
Dried milk (whole and skimmed)	59	49	43	52	35
Shell eggs .. .. .	71	87	86	99	99
Milk for human consumption (as liquid) .. .. .	100	100	100	100	100
Potatoes for human consumption	94	100	97	84	88

Source: Ministry of Agriculture, Fisheries and Food.

## 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 use of combine harvesters has necessitated the installation of drying and storage plant on a large scale, which may be operated on a co-operative basis or by a contractor.

### 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 and the area under this crop has increased.

### Oats

There was a decline of 32 per cent 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 fell by 23 per cent. No longer needed for horses, oats cannot compete in yield of grain with modern barleys. Yet 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. In Scotland, the decline has been less rapid and the acreage under turnips is now greater than in

England. The area under mangolds—grown almost entirely in England—has fallen by 45 per cent in the past decade, 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*

The sugar beet industry has been largely created by Government action. Beet is grown mainly in the vicinity of the beet sugar factories, most of which are situated in East Anglia and Lincolnshire. The crop is grown under contract to the British Sugar Corporation, which supplies the seed, selects the fields, takes the entire output at fixed prices and supplies growers with the resultant sugar beet pulp at a discount. The average yield in 1959 was estimated at 13.4 tons per acre, but yields of 20 tons per acre are sometimes achieved. Precision drilling has greatly reduced costs of growing, and more than half the crop is mechanically harvested.

### *Potatoes*

The English crop of early potatoes is grown in numerous, widely scattered districts with favourable soils and climate. It supplies the market during the summer months and reaches the consumer within a few days of lifting. Main crops, which are normally stored before sale, are grown chiefly in the Fen counties, Essex, Lancashire and Yorkshire. In Scotland, early potatoes are grown in a small district in Ayrshire, but the main industry is the supply of seed-raising potatoes for the English growers. In Northern Ireland, both ware and seed potatoes are produced, and a large part of the crop is exported to Great Britain and foreign countries.

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 4.6 pints per week.

Average yields per cow are still rising steadily; in England and Wales they have increased during the last decade by nearly 25 per cent and now average 745 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. 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 invariably supplemented with purchased concentrates.

## **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. If there is sufficient lowland pasturage the calves may be retained on the same farm for life; otherwise, they are sold at weaning to farmers with arable fodder and good grazing. 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 vaccines 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; the cross-bred progeny, in due course, pass on to the more genial conditions in the Midlands and in 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, has recently acquired some importance in the sheep farmers' budget; research into breeding for fleeces is being undertaken, notably 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 carcase is put. Britain has always used the carcase in three different ways: for curing as bacon, for sale in fresh condition as pork, and for sausages or other processed forms. For the several trades, pigs of three different weight ranges seem to be called for, roughly in the order given; but one feature common to all is the desirability of leanness.

Breeders, in the main, aim at the long type required by bacon curers, for which there is a grading system based on weight, carcase 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 the processing and distribution of pigmeat.

### *Poultry*

Most farms keep some poultry, but about a quarter of the birds in the country are kept on non-agricultural holdings, whether in backyards or on a commercial scale. In the past twenty or thirty years specialist techniques have been used increasingly and the industry has become more intensive. About five-sixths of laying birds on farms in 1958 were still in flocks of one thousand or less, but the number of larger flocks is increasing. With the rise in the poultry population and the yield of eggs per bird, by 1957 nearly all eggs consumed in the country were home produced. The estimated total output in 1958-59 exceeded that of pre-war years by nearly 90 per cent.

Within the industry the trend is towards specialisation in the breeding and supply of stock and in the production of eggs and table poultry. A scheme of accreditation of breeders and breeding stock, known as the Poultry Stock Improvement Plan, is operated by the Ministry of Agriculture, Fisheries and Food and provides for technical and veterinary supervision of breeding farms. The Scottish Poultry Improvement Scheme and the Poultry Progeny Testing Scheme operated by the Department of Agriculture and Fisheries for Scotland perform similar functions in Scotland. A completely new branch of the industry has grown up in the mass production of so-called broilers, i.e. chickens of eight to eleven weeks of age. It is estimated that some 100 million birds were sold in 1959, and the industry, which receives no subsidy, continues to expand throughout the country.

### **Horticultural Crops**

Horticultural crops occupy only a tiny fraction of the cultivated land of the country—roughly  $2\frac{1}{2}$  per cent of the agricultural area—but their value in terms of output per acre is very high. The total value of horticultural crops sold in 1959-60 is estimated at about £140 million, compared with some £260 million for farm crops. About 400,000 acres are under vegetables and about 295,000 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. Early crop districts, such as the Penzance region of Cornwall, have been favoured for the production of selected 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.

The holdings range from a few acres up to about 300 acres, and many have glasshouses, frames or forcing houses. The larger ones normally have specialised packing sheds, with washing and grading machinery, and irrigation plants. Use of fertilisers, particularly of an organic nature, is very heavy, and much of the field work is mechanised.

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, some 1,000 acres are covered with glass. Total production of tomatoes in the country is estimated at 100,000 tons, and the value of all glasshouse crops at £28 million.

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 is about equally divided between cooking and dessert varieties, with Cox's orange pippin heading the latter group. About 40,000 acres of varieties of cider apple are grown mainly in Devon, Hereford and Somerset for the cider-making industry. 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 and Kent. Raspberries are exceptional in that of the 10,000 acres grown in Britain some 8,000 are found in Scotland, mainly in the Blairgowrie district, in Perthshire.

Hop-growing for the brewing industry is confined to two areas, in Kent and Sussex, and in Hereford and Worcestershire. Capital outlay and cultivation costs are very high, but returns average about 12 cwt., worth some £400, per acre. The total annual value of the crop is about £6½ 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. A summary of the estimates forecast for the year ended 31st May, 1960, is given in Table 18.

TABLE 18

FARM EXPENSES AND SALES IN THE UNITED KINGDOM, 1959-60  
(As forecast for the *Annual Review*, 1960)

Expenses	£ million	Sales	£ million
Labour .. .. .	318½	Milk and milk products ..	343½
Rent and interest ..	96½	Fatstock (cattle 204; sheep 78½; pigs 158; eggs and poultry 239½) .. ..	680
Machinery .. .. .	222½	Wool .. .. .	17
Feedingstuffs .. ..	338		
Fertilisers .. .. .	96½		
Others .. .. .	168½		
<b>Total .. .. .</b>	<b>1,240½</b>	Farm crops (wheat 68; barley 70½; potatoes 65; others 59)	262½
<b>Net income (a) .. ..</b>	<b>356½</b>	Horticultural products ..	139½
		Other items .. .. .	30½
		Production grants, sundry receipts and other credits	97
		Increase in value of farm stocks and work in hand .. ..	27
<b>TOTAL .. .. .</b>	<b>1,597</b>	<b>TOTAL .. .. .</b>	<b>1,597</b>

Source: *Annual Review*, 1960 (Cmnd. 970).

(a) Represents the reward for the labour and management of farmers and their wives, and their return on capital invested in their farms.

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. In recent years the aggregate net income of farmers has usually been between £315 million and £360 million per annum. Government support to the industry has ranged between approximately £200 million and £300 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 about 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 (see p. 289). In recent years, however, many farms have been 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 £25 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 £40 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 £30 and £50 per acre on lower ground farms. Dairy farms are usually more heavily capitalised than other types of stock farms. On all types of farms machinery is a heavy item; even on stock-rearing farms it may amount to £5 per acre; on dairy farms it is often £10 per acre and on arable farms up to £15 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 642,000 in 1939 to 115,000 in 1959; tractor numbers rose from 102,000 in 1942 to 425,000 in 1959. Britain now has one of the greatest tractor densities in the world: one to every 34 acres of arable land. Power-take-off implements now characterise arable farming; and some 48,000 combine harvesters were in use in the 1959 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. Three-quarters of the farms in Great Britain have an electricity supply and accompanying equipment.

### 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 £7 million in 1959.

### 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 local representatives of agricultural interests, 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, whilst 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.

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. During this period, as during the war, 'production objectives' were set for each of the main commodities, though the Government gradually ceased to direct farmers what to grow. By means of additions to the prices fixed at annual reviews (see p. 282), £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. During the second period, 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 (see p. 284). 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 eight regions each administered by a regional controller working in close collaboration with the regional heads of the technical services. County Agricultural Executive Committees—successors of the War Agricultural Executive Committees—have a number of duties, including that 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 (see p. 228), 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.

The Northern Ireland Ministry of Agriculture in Belfast has in each county an agricultural executive officer who is responsible for carrying out the Government's agricultural policy.

## 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. In the course of reviews, 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 in the determination. 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 general policy of the Government is to avoid direct intervention in the market and therefore 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. In order to persuade producers to lower their costs of production and to increase their efficiency, pressure has been exerted at recent reviews by gradual reductions in the guaranteed prices of commodities with which the market is sufficiently supplied.

### Price Guarantees

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, crops which are largely consumed on farms, payments are based on the acreage grown. 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.

For most of the remaining commodities the Government makes a payment to the appropriate marketing board, which takes account of any subsidy payments from 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. 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, the Potato Marketing Board receives from the Exchequer any deficiency that arises when the average market price obtained by growers for potatoes for human consumption falls below the guaranteed price. The board uses such funds as it thinks fit in the interests of growers.

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 and molasses, 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 Cattle Subsidy*

To encourage the production of breeding-cattle on hill farms, a subsidy of £12 per head is paid on breeding cows in regular 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. In England, Wales and Northern Ireland an additional scheme, to help the small farmer for whom an improvement plan is not yet practicable, supplements the existing lime and fertiliser subsidies, ploughing and ditching grants. The Marginal Agricultural Production Scheme performs a similar function in Scotland.

*Destruction of Rabbits and Wood Pigeons*

The principal mammals and birds in Great Britain harmful to farming are rabbits, wood-pigeons, rats, mice 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 pest clearance societies in the systematic destruction of rabbits and wood pigeons; over 500 rabbit clearance societies have been registered in the United Kingdom. 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

TABLE 19

ESTIMATED GOVERNMENT EXPENDITURE ON AGRICULTURAL SUPPORT

	£ million	
	1958-59	1959-60
<i>I.—Farming Grants and Subsidies</i>		
General fertilisers subsidy .. .. .	25.8	29.0
Lime subsidy .. .. .	9.2	11.0
Grants for ploughing up grassland .. ..	9.2	9.3
Field drainage and water supply grants ..	2.7	3.1
Grants for improvement of livestock rearing land .. .. .	1.5	1.5
Marginal production assistance grants ..	2.2	1.7
Bonus payments under the Tuberculosis (Attested Herds) Scheme .. .. .	8.5	8.9
Livestock improvement of breeding ..	0.1	—
Calf subsidy .. .. .	14.3	16.4
Hill sheep and hill cattle .. .. .	3.1	4.0
Silo subsidy .. .. .	1.0	1.4
Grants for farm improvements .. .. .	3.3	6.3
Grants to rabbit clearance societies, etc. ..	—	0.1
Grants to small farmers .. .. .	—	1.9
<b>TOTAL I .. .. .</b>	<b>80.9</b>	<b>94.6</b>
<i>II.—Implementation of Agricultural Price Guarantees</i>		
Cereals:		
Wheat and rye .. .. .	19.3	20.4
Barley .. .. .	23.5	25.1
Oats and mixed corn .. .. .	9.8	12.7
	— 52.6	— 58.2
Home produced eggs .. .. .	33.7	36.5
Fatstock:		
Cattle .. .. .	12.5	3.4
Sheep .. .. .	11.7	25.9
Pigs .. .. .	20.9	21.3
	— 45.1	— 50.6
Milk (excluding school and welfare milk) ..	10.1	8.5
Wool .. .. .	6.3	3.0
Potatoes .. .. .	6.9	1.0
<b>TOTAL II .. .. .</b>	<b>154.7</b>	<b>157.8</b>
<b>TOTAL CASH (I AND II) ..</b>	<b>235.6</b>	<b>252.4</b>
Administrative overheads (applicable to I and II above) .. .. .	5.0	5.5
<b>TOTAL SUBSIDY I AND II</b>	<b>240.6</b>	<b>257.9</b>
<i>III.—Other Services</i>		
Payment to the Exchequer of Northern Ireland .. .. .	0.8	1.2
<b>TOTAL ESTIMATED COST OF AGRICULTURAL SUPPORT</b>	<b>241.4</b>	<b>259.1</b>



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.

### *Horticultural 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 for farm drainage and towards the cost of installing and improving farm water supplies. Separate legislation provides grants for these services in Northern Ireland.

## **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 the tariff on horticultural produce is varied through the year so as to allow imports to enter 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.

In November 1959, the Government issued a 'policy for the improvement of production and marketing of horticultural produce' (*Cmnd.* 880), referring to the need to improve the presentation and marketing of agricultural produce and announcing the Horticulture Improvement Scheme and the proposal to establish a Horticultural Marketing Council representing all those concerned in the marketing of horticultural produce—producers, wholesalers and importers, retailers and organised labour. Under the Horticulture Act, 1960, this council was set up in May 1960 with the task of improving the marketing and distribution of, and developing the trade in, horticultural produce. Its functions include giving information about supply, demand and prices; encouraging better grading and standardisation; carrying out research into marketing and distribution methods; and publicity and advertising. It is the intention 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.

## **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 Department of Health for Scotland) that good agricultural land should not be taken if there is less valuable land that would serve the purpose. The Ministry of Agriculture assists in carrying out this policy in England and Wales by providing expert advice to local 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.; this may take the form of a loan on first mortgage or of an improvement loan. 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 are also available to landowners from the Lands Improvement Company, whose funds are provided privately. An improvement loan may be obtained for the purpose of carrying out improvements to agricultural land and buildings. The amount of the loan is charged on the land improved in the form of a terminable rent charge. This type of loan requires the sanction of the 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 the 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. Later legislation imposed on them an obligation to provide smallholdings and enabled the minister to contribute towards their losses. The aim of this legislation 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 17,000 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 to develop 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 smallholdings. In this way tenants can be helped to obtain livestock, machinery, implements and other necessary items; the tenant 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 432,000 acres of land settlement estates, with over 4,000 holdings.

Some economists question the value of this smallholdings policy on the ground that many of the holdings are too small to provide a reasonable livelihood and that the average size of holding in Britain needs to be increased rather than diminished. On the other hand, it is difficult for persons without considerable capital or financial backing to enter farming, and the smallholdings policy does provide an opportunity for the experienced farm worker.

### **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 either rented at a cost of not more than £50 a year or have an area not exceeding 50 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, under the Crofters (Scotland) Act, 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 has power to carry out reorganisation schemes in derelict or decaying 'townships' (crofting communities) if a majority of the resident 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 powers over the 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.

After four years of office the Commission reported in 1960 on the ineffectiveness of certain of its powers and recommended new powers for the long-term rationalisation of the outdated pattern of minute units. This consolidation of holdings into full-time units raises social problems of maintaining viable communities which can only be solved by a diversification of employment.

### **Arterial Drainage and Sea Defence**

Land drainage in England and Wales is administered by 34 river boards<sup>1</sup> 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.

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<sup>1</sup> 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.



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 over £6½ million a year. Government grants, including grants towards the repayment of loans raised in previous years, amount to about £3½ million. Drainage authorities expenditure on maintenance is estimated at about £2¼ million a year and is rising steadily.

In December 1959, the Government issued a White Paper entitled *Land Drainage in England and Wales* (Cmnd. 916), setting out proposals which would be embodied in new legislation extending the powers of river boards to deal with arterial water-courses. At the same time, it is proposed to improve the administrative provisions of the Land Drainage Act, 1930, and to extend the land drainage powers of local authorities.

### Land Tenure

By long tradition the typical agricultural tenancy in England and Wales is from year to year, in Scotland from 10 to 14 years, and it is not always committed to writing. Since uncertainty is inimical to good farming, the State defines the rights and obligations of landlords and tenants.

The Agriculture Acts of 1947 and, for Scotland, 1948, lay down rules of estate management and good husbandry defining the responsibilities of landlords and tenants respectively. The landlord is responsible for providing fixed equipment; the tenant must maintain a reasonable standard of production and preserve the fertility of the land. Provisions in these Acts for contracts of tenancy (in Scotland, leases) to be committed to writing if either party so requests were later incorporated in the Agricultural Holdings Acts of 1948 and 1949 respectively.

In England and Wales, the responsibility for keeping fixed equipment in repair, where not made explicit by a written agreement, is defined by regulations. Provisions in tenancies which restrict unduly the farming operations of the tenant are discouraged.

A satisfactory tenant farmer is assured of security of tenure. In the first place at least twelve months' notice to quit is needed; even so, the notice is inoperable if the tenant objects, but, in that event, the landlord may apply in England and Wales to the Agricultural Land Tribunal (an independent judicial body appointed by the Lord Chancellor and composed of a lawyer chairman and two members representing farmers and landowners respectively) or in Scotland to the Scottish Land Court, who may consent to the notice if they are satisfied that it is in the interests of good husbandry or for certain other reasons. If the tenancy is terminated, the landlord must compensate the tenant for certain improvements and may claim for dilapidations.

Rents may be altered by agreement at any time or adjusted by arbitration at intervals of not less than three years in England and Wales and five years in Scotland. The criteria to be adopted by the arbitrator are laid down by the Agriculture Act of 1958. A landlord is entitled to claim additional rent for improvements he has carried out.

## Labour Legislation

### *Wages*

In England and Wales and Scotland, Agricultural Wages Boards (see p. 472) representing workers and employers with independent members appointed by ministers, prescribe statutory minimum wage rates for all agricultural workers. Inspectors appointed by ministers are responsible for securing the observance of the Wages Acts and Orders made by the boards.

### *Safety, Health and Welfare*

Legislation, comparable with the Factories Acts, now exists in Great Britain and Northern Ireland to provide for the safety, health and welfare of farm workers and a regulatory code is being built up which covers, *inter alia*, precautions to be taken when dangerous chemicals are being used, first-aid equipment, the protection of children and the guarding of farm equipment and machinery. Regulations are enforced by the Safety and Wages Inspectorate. A voluntary scheme to protect consumers, domestic livestock and wild life from adverse effects of poisonous chemicals is being operated with success. All these measures are part of a wider campaign for safety in agriculture.

## MARKETING

Most agricultural products are now disposed of through the normal channels of trade, e.g., corn merchants, livestock auctions and markets, and bacon factories; or through producers' own co-operative marketing organisations, such as egg packing stations. For certain commodities, however, there are marketing boards operating under the Agricultural Marketing Act, 1958 (which consolidated earlier legislation). These 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 categories: first, the full trading board with power to become the first selling agency for virtually all producers; and second, regulatory boards which exercise control over marketing by producers themselves. The boards for eggs, hops, milk and wool fall into the first category and those for potatoes and for tomatoes and cucumbers in the second.

## 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 freed for many years from eight serious animal diseases including rinderpest, sheep scab, glanders and rabies. A ninth has been almost eliminated; for all practical purposes bovine tuberculosis has already been banished from Scotland, Wales and the greater part of England; the eradication programme is expected to be completed by 1961. Northern Ireland expects to do likewise.

To supplement the work of private veterinary 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.

## **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'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.

In Scotland, the advisory services, similar in scope to the NAAS, are based on the three agricultural colleges (see p. 293). Northern Ireland has its own separate advisory service.

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;
- (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 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. 210) and is largely financed by the State. The council has 23 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 research laboratories (see p. 215). 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 Canada).

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 not co-ordinated by the ARC. 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, which also has its Farm Economics Branch, has, in addition, its own research divisions investigating problems of animal and crop production.

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), and three in Scotland (Edinburgh, Glasgow, and Aberdeen) provide degree 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 is to be built next to the National Institute of Agricultural Engineering at Silsoe, Bedfordshire. This will be the eighth of the national colleges (see p. 169) 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. They are intended mainly for farmers and farm managers, and lead to diplomas in agriculture, dairying, horticulture, poultry husbandry and agricultural engineering. In Scotland, the three colleges also offer two- or three-term certificate courses. In Northern Ireland there are three agricultural colleges.

There are 32 county farm institutes in England and five in Wales run by local education authorities, and Northern Ireland has one. They provide residential courses in general agriculture, dairying, horticulture and poultry husbandry. These courses, which are usually for one year of about 36 working weeks, are designed for those wishing to become skilled workers in the industry. Local education authorities also provide a wide range of short courses and classes for farmers, farmworkers, horticulturists and domestic producers.

There are eight 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.

Courses in land management are available at the Universities of Cambridge and London and at the Royal Agricultural College, Cirencester.

## FISHERIES

Britain's sea fishing 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 in intermediate waters or near the surface.

The white fish section of the industry is made up of three distinct groups: the distant water, the near and middle water, and the inshore fisheries. The distant waters are those off Iceland, Greenland 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, Leith, Fraserburgh, the Moray Firth ports, Shetland, the west coast and the Clyde, and for herring they are Fraserburgh, Peterhead, Aberdeen, Shetland, and Stornoway, as well as the

west coast and the Clyde; those in Northern Ireland 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. In trawling, a funnel-shaped net of heavy twine is towed along the sea bed. In seining, a funnel-shaped net with long wings is slowly hauled towards the vessel, the long manila warps driving the fish into the path of the net. In lining, long lines are made up with baited hooks at regular intervals and are laid over a considerable area; deep sea lining can be carried out on grounds too rough for trawling, as well as on smooth grounds. A limited number of Scottish vessels are engaged in this fishery. Lining also provides employment, in autumn, winter and early spring, for a large number of inshore fishermen fishing for cod, whiting and haddock. Ring netting, mainly used by Scottish fishermen, is an efficient method of encircling shoals of pelagic fish, such as herring or pilchard. In drift net fishing, a number of finely meshed nets, attached to each other, form a vertical curtain of netting so that fish swimming against them are caught by the gills. The vessel drifts with the wind and tide for a few hours, usually starting at dusk, before hauling.

Trawling is carried out in the distant, near and middle waters for all species of demersal fish throughout the year. Seining is also dependent upon demersal fish and is operated all the year round. An increasing number of English, Scottish and Northern Irish vessels 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 800 Scottish and Northern Irish seiners, and about 200 operate from English ports.

The pelagic fisheries are seasonal. There is a summer fishery for herring based on the Shetlands, the east coast ports of Scotland, and the north-east coast ports of England, and an autumn fishery 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, prawns, cockles and oysters, and, off Scotland and Northern Ireland, there is a fishery for 'Norway lobsters' (nephrops).

### The Fishing Fleet

Distant water vessels, which operate mainly from Hull, Grimsby and Fleetwood, numbered 239 at the end of 1959. They are over 140 feet and up to 260 feet in length and make voyages of 17 to 23 days to fishing grounds in the Arctic Circle although there has, in the past few years 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 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 water vessels numbered 483; they are under 130 feet long and work near home, making voyages of three to ten days. Middle water vessels numbered 73; they are 130 to 140 feet in length and undertake voyages of about two weeks. Included in the near water group are vessels engaged in drift net fishing, which usually make daily voyages. The inshore group consists mainly of vessels of under 70 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.



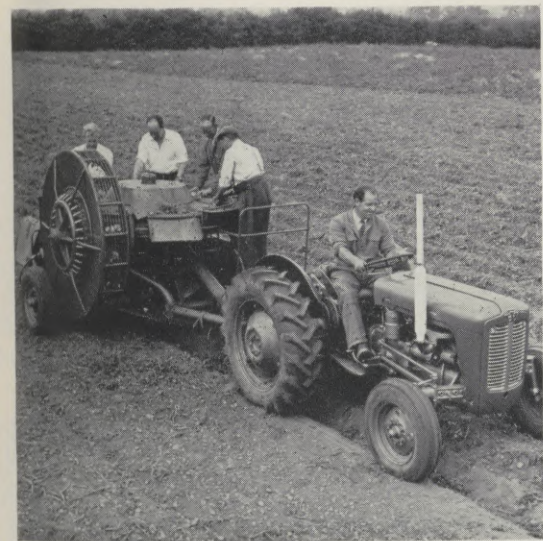


The Hayter silorator harvester lacerates the grass so that the cell tissue speedily ferments.

*Right:* A Bray Centaur tractor with two 5-furrow ploughs, used alternately for one-way ploughing; it has a variety of other agricultural uses.



*Below:* The Massey-Ferguson potato harvester, which will work in the wettest conditions, has been developed from the National Institute of Agricultural Engineering's experimental prototype.



Precision seed drills save seed and labour: this Stanhay drill is power-driven.

Ransomes' *Senior Cropguard* sprayer has a boom width, with extensions, of 32 feet.





# BUILDING IN LONDON



Reconstruction in the City, seen from St. Paul's.



An extension of the Bank of England.



Bowater House, a new office block in West London.

Flatted workshops in East London built by the London County Council for small firms displaced by housing schemes.



Transit shed with 200-foot span at the Royal Dock.



The Elliott School in South London, one of the London County Council.





Mid-nineteenth century terrace houses converted into flats and maisonettes by the London County Council as part of the Brandon Estate, South London, which includes 18-storey blocks of flats.



a Dock.

*Right:* Flats in North London built by St. Pancras Borough Council.



*Below:* Part of an estate built by the Paddington Borough Council.



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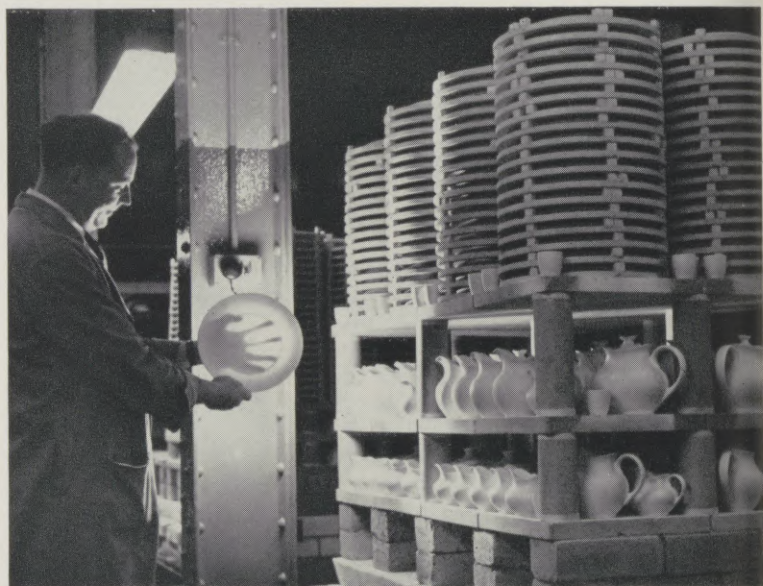






A group of British Motor Corporation small cars being exported to France by Bristol *Superfreighter*.

English translucent china being tested for translucency at the Royal Doulton Potteries in Staffordshire. In spite of its high quality, this new type of china costs only about half the price of bone china.



Outdoor oil circuit-breakers being checked at the English Electric Company works at Stafford before shipment to Los Angeles.

In the United Kingdom fishing industry in 1959 there were about 24,000 fishermen in regular employment and some 3,500 were occasionally employed; 10,000 of the former and 1,200 of the latter were from Scottish ports. In Northern Ireland there were 450 regular fishermen.

### Supplies

In the year which ended on 31st December, 1959, landings of fish, both demersal and pelagic, in the United Kingdom by British fishing vessels totalled 860,000 tons (707,000 tons of demersal fish and 153,000 tons of pelagic), valued at about £50.5 million. Landings at British ports by foreign vessels totalled about 93,000 tons of fresh and frozen fish (including 36,000 tons brought direct from the fishing grounds), valued at about £9 million. British landings of shellfish yielded £11.94 million. Cod accounted for 41 per cent of the total value of wet fish (i.e. fish other than shellfish) landed by British vessels; haddock (17 per cent) and plaice (9 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 1959 amounted to about 193,000 tons valued at £53 million, including 56,000 tons of canned salmon to the value of £30 million and other canned fish worth £9.6 million.

Weekly consumption of fresh, frozen and cured fish (excluding shellfish and imported canned fish) in the United Kingdom averaged 15,900 tons landed weight in 1959. On an edible (fillet) weight basis, United Kingdom consumption has been estimated provisionally at 18.2 pounds per head in 1959, compared with 28.7 pounds in 1948 and an annual average of 21.8 pounds from 1934-38.

Northern Ireland consumes about one-third of the catch landed there by British vessels (10,000 tons in 1959) and exports the rest 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. For example, the production of quick-frozen fish has increased fivefold since 1952. With the increase in quick-freezing, new export outlets have opened up for white fish, which accounted for about half the total British exports of fish and fish products, valued at £6 million in 1959. Markets abroad for quick-frozen fish, mainly in Europe and the Commonwealth, have continued to expand, but exports of herrings, for which Eastern Europe and the Soviet Union have been large customers, have declined because of the fall in total catches.

### 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 78,000 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 1959 totalled 147,000 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 £350,000 a year, in Scotland it amounts to about £1 million, and in Northern Ireland to some £200,000. In Northern Ireland, eels worth £100,000 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 350 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. Some sixty 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 15,000 fishmongers and nearly 15,000 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 (10 per cent of fish sold in 1959 was estimated to be quick-frozen); the other is the decline, from about 25,000 in 1950, in the number of fried fish shops.

### **Promotion and Regulation of the Industry**

Laws in Britain relating to fisheries and fish are principally directed to the following purposes: (1) protection of supply by measures against over-fishing, e.g., the Sea Fisheries Regulation Act, 1888, the Sea-Fishing Industry Act, 1933, and the Sea Fish Industry Act, 1938; (2) promotion of the prosperity of the industry, e.g., the Herring Industry Acts, 1935 to 1957, the White Fish Industry Acts, 1951 to 1957, and the Fisheries Act, 1955 and the Sea Fish Industry Act, 1959; (3) protection of the quality of the product, e.g., the Food and Drugs Act, 1955. The Government departments mainly responsible for the administration of laws in the first two categories and for the development of every branch of 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 Department of Health for Scotland 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 authorities concerned with fisheries research are the Ministry of Agriculture, Fisheries and Food, the Department of Agriculture and Fisheries for Scotland, the Northern Ireland Ministry of Commerce, the White Fish Authority, the Herring Industry Board, and the Development Commissioners; and, on food investigation, the Department of Scientific and Industrial Research.

A Committee of Inquiry into the Fishing Industry was appointed in November 1957, to assess, in relation to developments in fishing and the marketing of fish, the size and pattern of an economic fishing industry in the United Kingdom.



### *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 grants and loans for the purchasing 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 kipping. 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 a number of processing factories for this purpose.

### *The White Fish Authority*

The White Fish Authority and the Scottish Committee 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 Scottish Committee to advise the authority about the exercise and performance of its functions in Scotland. 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 52 members representing the various interests of the fishing industry.

The White Fish Authority administers the Government's grant and loan schemes of assistance to fishermen towards the purchase of new vessels and engines and for the conversion of coal-burning engines to diesel or oil-firing and, as regards loans, towards the cost of nets and gear and processing plants. Up to 31st March, 1960, £23.9 million in loans and £9.3 million in grants were approved for these purposes by the authority. Its other activities are financed by a levy on the first-hand sales of fish.

### **White Fish and Herring Subsidies**

Since 1950 a Government subsidy has been paid to the owners of near and middle water and inshore vessels fishing for white fish. This subsidy, which varies according to the length and method of propulsion of the vessel, is paid at a rate of so much per day at sea for the larger vessels and at so much per stone of fish landed from the small boats. In 1959-60 the total sum expended in this way amounted to £2.2 million. In 1957 the subsidy was extended to cover herring. Conditions and rates are broadly the same as for the white fish subsidy. The amount expended in 1959-60 totalled £400,000.

Under the Sea Fish Industry Act, 1959, which came into operation in December 1959, the provision available under the White Fish and Herring Industries Acts of

1953 and 1957 for grants towards the cost of new vessels and engines, etc., was increased from £9 million to £14 million and the amount available for white fish and herring subsidies was increased from £19 million to £24 million. The Act also included provisions to extend the powers of the fisheries ministers to enable the United Kingdom to play its full part in carrying out internationally agreed measures for the conservation of fish stocks.

### **International Fisheries Conservation Convention**

A new Fisheries Conservation Convention, covering the north-east Atlantic, was signed in London in January 1959. The United Kingdom is among the signatories and was the first to ratify the convention. The convention which, on full ratification, will replace the one at present in force, which is more limited in scope, will make possible further measures for conserving fish stocks throughout the north-east Atlantic Ocean and its dependent seas (excluding the Baltic).

### **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.

Until 1960 the United Kingdom industry ranked third in size, after those of Norway and Japan, sending three expeditions to the Antarctic each year. But some reduction in the number of United Kingdom expeditions is now expected. 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 expeditions in the 1959-60 season amounted to about 289,000 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. Timber and its products are of great importance to the economy of the country, and large quantities of industrial timber (i.e. wood other than that used for domestic fuel) are needed to meet all demands; but, except for the period of the second world war when, of necessity, much over-felling took place, home woodlands have not been in a position to make 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, 1959, the area of woodland in blocks of one acre and over in extent was estimated to be 4,075,000 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 1959 is given in Table 20.

TABLE 20  
CLASSIFICATION OF FOREST AREA IN GREAT BRITAIN (1959)

*Thousands of acres*

Forest Type	Forestry Commission woodlands	Private woodlands (a)	Total	Percentage of total forest area
Mainly coniferous high forest ..	1,094	630	1,724	42
Mainly broadleaved high forest ..	131	739	870	22
Coppice and coppice with standards	29	300	329	8
Unproductive woodlands ..	88	1,064	1,152	28
TOTALS .. .. .	1,342	2,733	4,075	100
Percentage of total forest area ..	33	67	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 of unproductive woodland, i.e. 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 home demands for timber. During the past ten years the area of this unproductive category has been reduced by about 150,000 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.

### Volume of Timber

On 30th September, 1959, the volume of standing timber in woodlands in Great Britain, including that in hedgerows and in woods of less than one acre in extent, was estimated to be 3,750 million hoppus feet.<sup>1</sup> This consisted of 1,450 million hoppus feet of softwood (derived from coniferous species) and 2,300 million hoppus feet of hardwood (derived from broadleaved species). The net annual increment (the year's growth minus losses due to fire, decay or similar causes) was about 112 million hoppus feet. The climate and soil of Great Britain are such that the annual rate of 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

<sup>1</sup> The measure for standing timber: the square of the quarter-girth of timber (in inches) multiplied by the length (in feet) and divided by 144 gives the measure of volume in hoppus feet.



variety of domestic and industrial purposes, for instance, as charcoal in iron-smelting, for fuel, housebuilding, domestic and agricultural equipment, and shipbuilding. Occasionally, from the sixteenth century onwards, the Government encouraged the planting of high forest as an insurance against the blockade of war, but in times of normal trading it was the practice to buy timber from abroad. Following the Industrial Revolution, cheap and easily workable timber began to be required in ever-increasing amounts for a variety of new industrial uses. Home woodlands contained neither the types nor the quantities of timber to meet this demand and the importation of timber, principally of softwoods, expanded greatly. By 1914 the trade in imported timber had grown, and the contribution from home woodlands had shrunk to a point where no more than 7 per cent of the country's total requirements were being met from home sources. The sudden demands of the first world war, however, 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. The Forestry Act, 1951, placed responsibility for the licensing and felling of growing trees in Great Britain on the Forestry Commissioners. Besides conducting its own forest operations, the commission represents the interests of British forestry at inter-governmental meetings, gives encouragement to private forestry and performs a wide range of general forestry duties such as research and education and the publication of technical and other literature on forestry. The commission also plays an important part in encouraging the establishment of new timber-using industries. In the administration of its duties in relation to private forestry there is continual contact between the commission's staff and private landowners, and the staff gives advice, free of charge, on silvicultural and management problems; substantial grants for planting and other forestry activities are paid to woodland owners (see p. 302).

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 and it became clear that vigorous measures would be needed in post-war years if timber resources were to be replenished and increased. 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 programmes of the Forestry Commission should be fixed for periods of ten years at a time. For the five-year period 1959 to 1963 the programme would be about 300,000 acres. For the period 1964 to 1968, the planting programme would be reduced to about

235,000 acres, by which time the Forestry Commission's existing plantations would begin to come into full production. The size of the subsequent programme is to be reviewed in 1963.

### *Work of the Forestry Commission*

By 30th September, 1959, forty years after the Forestry Act of 1919, the Forestry Commission's estate totalled over 2,400,000 acres of land, of which over 1,500,000 acres were forest land—plantations acquired or established by the commission, land still to be planted, and nurseries—an area greater than the whole of the county of Northumberland. The remainder of the land consisted of rough grazing and other agricultural land, and land unsuitable for planting, such as the tops of mountains. The total number of commission forests in Great Britain on 30th September, 1959, was over 500, well distributed over England, Scotland and Wales. In 1954, the peak year, the area planted was 70,400 acres; it decreased to 55,100 acres in 1959, owing to the continuing difficulty of acquiring sufficient plantable land. All the commission's 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 Newborough, Anglesey, and nearly 2,400 acres at Pembrey, Carmarthenshire, are being successfully planted.

Over 15,000 people are employed on the staff of the commission, including 1,760 forest officers, foresters, land agents and engineers, 880 indoor staff—office workers and draughtsmen—and 12,500 forest workers, lorry drivers, warreners, shepherds and other manual workers. About £6 million a year is paid in wages. The commission has acquired or built 4,600 houses and nearly 6,000 miles of road.

Large-scale planting expands opportunities for employment, not only for forest workers but for the communities in which they live. This expansion is taking place particularly in the remote uplands where formerly there was a steady exodus of young people to the towns. In these places the work of the commission, which includes the establishment of completely new villages, has often reversed this trend and increased the proportion of young people in the communities.

Many of the commission's staff combine forestry and farming. Since 1919 the commission has established over 1,000 'forest workers' holdings', each of a few acres, where the tenant agrees to do a minimum of 150 days' work each year in the forest.

Integration of forestry and agriculture is practised in marginal hill areas. An example of this is the 'Strathoykell' scheme which is proceeding in adjoining sheep-farming areas in Ross and Sutherland, in Scotland. In this area a substantial acreage has been planted by the Forestry Commission, houses have been built, grant-aided farm improvements have been made, and stocks of sheep and cattle have been increased.

### **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 1959, net grants from Parliament totalled £107·8

million and receipts from other sources £35.4 million. Expenditure during these years totalled £142.8 million. In the year ended 30th September, 1959, expenditure amounted to £13.1 million, of which £904,000 represented various grants to private forestry.

The value of the produce of the plantations totalled nearly £28 million by 30th September, 1959, and now amounts to over £2 million annually. The Forestry Commission's forest estate is now conservatively value at over £140 million. The eventual yield on the public money invested in the commission's estate (money that must normally be invested in land that is marginal for agriculture, not the most productive forest land) is expected to be about 3 per cent, compound interest.

### **Private Forestry**

Privately owned woods in 1959 comprised 67 per cent of the total forest area in Great Britain (as shown in Table 20), 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, under the Forestry Act, 1947, of the Dedication of Woodlands Scheme. 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 1959 the total area dedicated was 576,000 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 730,600 acres. This does not take into account other estates that are already working to a plan but have not been put forward for inclusion in either scheme. 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' Association (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 whole of Scotland, a number of areas in Wales and several districts in England are now served by such societies. 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.

The total area estimated to have been planted annually by private owners has risen from 9,000 acres in 1947 to 34,800 acres in 1959; this compares with a pre-war average of 6,000 to 7,000 acres.

In 1959, the Home Grown Timber Marketing Corporation was established by the timber merchants. Its aims are to promote the use of home grown timber, to investigate new markets, to help merchants to meet the bulk demands of industry and to ensure a high standard of quality and service for consumers.

### **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, working directly under the authority of the commissioners, supervise certain aspects of the commission's work, including particularly the acquisition and management of land and the promotion of private forestry; in the latter task they are required to maintain direct contact with the regional advisory committees which have been set up in each of the commission's conservancies with the purpose of providing a link with all those in the conservancy who are interested in forestry. On all proposals for acquisition of land, the commission consults the Ministry of Agriculture, Fisheries and Food and the Department of Agriculture for Scotland.

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; it meets quarterly to discuss various matters affecting the marketing of home grown timber. 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. Among the members of this committee are representatives of the Forest Products Research Laboratory (see below), the Rural Industries Bureau (see p. 257) and the Timber Development Association.

### **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. Northerwood 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 £340,000 in 1959. The commission makes 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.

The Forestry Commission has played a leading part in the Commonwealth Forestry Conference, since its first meeting in 1920; the seventh meeting was held in Australia and New Zealand in 1957. The commission is also closely associated with the work of the International Union of Forest Research Organisations, whose twelfth congress was held at Oxford in 1956.

### **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 1960, over 100,000 acres had been acquired, of which nearly 55,000 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 1960, expenditure amounted to about £7 million, and receipts, other than parliamentary grants, were in the region of £2.5 million. Output and employment are growing steadily. About 2,000 people are employed in field labour and ancillary work. The area of exploitable private woodlands is at present about 20,000 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.

## FUEL AND POWER

The main primary sources of energy currently used in Britain are coal, petroleum and, to a small extent, water power; secondary sources produced from these are electricity, gas and coke.

Coal, mined within the country, supplies some three-quarters of this 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 energy consumption has shown marked changes in recent years. Consumption of coal was 12 per cent lower in 1959 than in 1955, while that of oil was 57 per cent higher and represented nearly one-quarter of total energy consumption. Electricity consumption continued its steady rise and in 1959 was 31 per cent higher than in 1955, while that of gas was 4 per cent lower.

The fuel and power industries, with the exception of the petroleum industry, 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 Department of Scientific and Industrial Research as well as by the individual industries.

The Government's long-term policy, based on freedom of choice for consumers and economic competition between the fuel industries, has two principal objectives. The first is to ensure that fuel and power supplies are adequate to meet fully and at minimum cost the rapidly growing demands of industry and of the domestic consumer in a country with an expanding national income. The second is to make the best use of indigenous resources and so lighten the load on the balance of payments.

## 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.

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 mineral coal to the State and made it the statutory responsibility of a Coal Commission to accelerate the integration of the industry by reducing still further the number of separate undertakings. At the outbreak of the second world war in 1939, however, this process was not far advanced. In 1942, the Government assumed full control of the industry's operations, though the colliery undertakings continued to own the coal mines.

### **The National Coal Board**

In July 1946, the Coal Industry Nationalisation Act was passed and 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, 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 number of full-time members must not exceed eight and there must be one, and may be two, deputy chairmen.

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. The board has statutory duties to develop the industry efficiently and to ensure the safety, health and welfare of its employees. Its policies must be directed to ensure that on an average of good and bad years its outgoings do not exceed its revenues.

The board is responsible for its own regional organisation. The collieries, numbering about 730, are grouped into 48 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 National Coal Board, 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 board, however, has no monopoly of sales or distribution. It makes some wholesale sales to large consumers and also in a few areas, retail sales, but most retail distribution is carried on by private firms.

Two Coal Consumers' Councils were set up under the 1946 Act: the *Industrial Coal Consumers' Council*, members of which represent consumers, merchants and suppliers of coal, coke and manufactured fuel for industrial and other purposes, involving supply in bulk; and the *Domestic Coal Consumers' Council*, members of which represent similar groups concerned with coal for domestic use. These two councils have the duty of considering and where necessary reporting to the Minister of Power on any matter affecting the sale or supply of these fuels.

In its first year, 1947, the board had a deficit of £23.3 million, and since then has made surpluses in some years and deficits in others. The cumulative deficit at the end of 1959 amounted to £52 million.

The National Coal Board raises capital by long-term borrowing direct from the Exchequer, instead of through the issue of stock. 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.

### **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. Other important coal-bearing areas are those of Lancashire and the West Midlands (Staffordshire and Warwickshire). There are no coal-bearing areas in Northern Ireland. Prospecting for coal continues both inland and off the north-east coast of England.

In the early years following nationalisation, the National Coal Board was able to secure quick increases in production and productivity by reorganisation, by a wider application of improved working methods and by increased mechanisation. As a result, deepmined production increased from 187 million tons in 1947 to 214 million tons in 1954. Production remained roughly stationary until 1957, but declined to 195.3 million tons of deepmined coal in 1959 owing to a fall in demand. Output in tons per manshift worked at the coal face has increased gradually and in 1959 reached 3.73 tons compared with 3.34 tons in 1954 and 3.05 tons in 1938. The comparable figures in 1959 for the division with the highest output per manshift—the East Midlands division—was 5.56 tons.

To meet the fall in demand, the board reduced opencast production (from 14 million tons in 1958 to 9 million tons in 1959) and accelerated the closure of uneconomic pits.

Future plans are directed towards bringing efficient new mines into production, the development of machines for power-loading the coal at the face on to face-conveyor belts and the reorganisation of the haulage systems. The National Coal Board has launched a large programme of major reconstruction and new sinkings.

During the post-war years until 1957, the industry suffered from a shortage of manpower. Latterly, however, because of falling demand and rising stocks the numbers

employed fell to 634,000 (of whom 243,000 were employed at the coal face) at the end of 1959 compared with 704,000 (with 295,000 at the coal face) at the end of 1953, and recruiting has been temporarily restricted in certain areas.

### Consumption and Overseas Trade

Coal consumption in Britain increased by an average annual rate of 3 million tons between 1947 and 1956 and, to cover requirements in certain years, supplies had to be imported from the United States. After 1956, inland sales fell and totalled 190.5 million tons in 1959. The reasons for the decline included the pause in the expansion of industrial production, the growing competition from oil and increasing efficiency in the use of coal.

Table 21 summarises the pattern of coal consumption in Britain in the years 1957-59. The electricity authorities took about one-quarter of total supplies, much of it in the form of small coal not suitable for other uses.

TABLE 21  
INLAND COAL CONSUMPTION IN THE UNITED KINGDOM 1957-59

*Million tons*

Type of User	1957	1958	1959 (provisional)
Gas .. .. .	26.4	24.8	22.5
Electricity .. .. .	46.5	46.2	46.1
Railways (including briquettes) ..	11.4	11.3	10.2
Coke ovens .. .. .	30.7	27.8	25.7
Iron and steel .. .. .	5.6	4.5	4.0
Engineering and other industries ..	31.9	29.1	27.5
Domestic and miscellaneous .. .. .	60.7	59.1	54.5
TOTALS .. .. .	213.2	202.8	190.5

Source: Ministry of Power.

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 1959, exports of coal, coke and briquettes amounted to 5.5 million tons valued at £23.9 million, the principal markets being Denmark, the Irish Republic, Norway and Sweden.

### Safety, Health and Welfare

The safety, health and welfare of miners are safeguarded by comprehensive legislation, which was consolidated and brought up to date by the Mines and Quarries Act, 1954. Responsibility for the enforcement of safety regulations lies with the Mines and Quarries Inspectorate of the Ministry of Power.

The National Coal Board has its own safety organisation and, in accordance with the Nationalisation Act, follows a policy directed towards securing the safety, health and welfare of its employees; examples of voluntary action by the board to reduce risks are the installation of fire-resistant conveyor belts, the replacement of light alloy supports (which had been found to be liable to produce dangerous sparks) and the widespread introduction of courses of training for various classes of officials

and workmen. The board has also continued to strengthen the medical services which existed before nationalisation. Chief divisional and area medical officers have been appointed and assistant medical officers are being appointed in areas with a labour force of more than 15,000 men. Medical centres are being set up at the pit head.

The board is responsible for its employees' welfare at their work-places, for example, by providing pit-head baths and canteens, while the social welfare of coalminers and their families has, since 1952, been the responsibility of the Coal Industry Social Welfare Organisation, which is controlled by the board and the miners' trade unions.

Research into problems of safety and health is carried out also at the Ministry of Power's Safety in Mines Research Establishment, which maintains a close liaison with the Mines Inspectorate and the National Coal Board's research organisation.

### **Air Pollution**

The Government also aims to reduce air pollution. The Clean Air Act, 1956, which came fully into force on 1st June, 1958, makes it an offence to emit dark smoke or fail to provide industrial premises with equipment to arrest grit and dirt, and empowers local authorities, subject to the approval of the Minister of Housing and Local Government or the Secretary of State for Scotland, to declare 'smoke control areas', in which the emission of smoke from chimneys constitutes an offence; grants may be made by local authorities and by the Exchequer towards the costs incurred by owners and occupiers of premises in these areas in making necessary changes to appliances. Clean Air Councils, to review progress and to advise the Government were set up in 1957. By the end of March 1960, 258 smoke control areas had been confirmed by the ministers.

### **Development and Research**

Contraction and curtailment of development in the industry since the peak year, 1913, had led to a position in which, by 1950, less than one-third of current output was being obtained from pits started in the twentieth century. Large-scale development was therefore essential.

#### *Capital Investment*

The National Coal Board's long-term plan of development for the industry involves the reorganisation and increased mechanisation of existing mines and the sinking of new ones. First published in 1950, it was considerably revised in 1956; and three years later, in October 1959, a further revision was announced. The last provides for the investment of £511 million in the period 1960-65, by which date 80 per cent of coal output will be coming from new and reconstructed collieries. Capital expenditure by the industry totalled £462 million from 1947 to 1955, and £414.5 million in the four years 1956 to 1959.

#### *Mechanisation*

All but a small proportion of coal output is now mechanically cut and conveyed. In 1959, 62 per cent, or 119 million tons, was mechanically cleaned; each man at a mechanically worked coal face produced an average of 6.5 tons per shift; and one-third was power-loaded.

#### *Research*

In 1948, the National Coal Board established a central research organisation, the Coal Research Establishment, at Stoke Orchard, near Cheltenham, Gloucestershire, to provide facilities for fundamental research in the coalmining industry, as distinct from the day-to-day scientific control exercised by the divisional and area



scientific organisation. A second central research organisation for the investigation of underground problems, the Mining Research Establishment, was formed in 1952 by the board at Isleworth, Middlesex, and a Central Engineering Establishment for developing new machines and testing equipment is now operating near Bretby, Derbyshire.

The board 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 National Coal Board 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.

In 1959, the board set up a new department concerned primarily with the development of new processes for the making of smokeless briquettes from small coal. Research at the Coal Research Establishment at Stoke Orchard had already led to a promising new process. A committee was appointed by the Minister of Power, in April 1959, to investigate possible methods of converting coal into chemicals, gas and oil, and recommend further research and development work on any processes that appear to hold promise of industrial application.

### 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 one per cent of total United Kingdom requirements, the remainder being imported from overseas.

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 the cost of the processes and other economic difficulties led to a reduction of output. Production amounted to some 710,000 tons in 1959, yielding over 60,000 tons of crude shale oil. From the latter, some 57,500 tons of refined products were obtained. Some 265,000 tons of refined benzole were derived from coke ovens and gasworks. Prospecting for crude petroleum has so far led to the establishment of several small oilfields in Nottinghamshire (Eakring, Egmonton and Bothamsall), in Leicestershire (Plungar), in Lincolnshire (Gainsborough) and in Lancashire (Formby). Annual production of crude oil from indigenous oilfields totals about 83,000 tons. At Broadbench, Dorset, a single boring has found oil, possibly in commercial quantities. This is the first oil strike in the south of England during the post-war search.

Indigenous crude oil both from shale and from oil wells is refined at Pumphurston, 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 (part owned by them and part 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 1959, the United Kingdom imported 39.6 million tons of crude oil, valued at £313.6 million; nearly half came from Kuwait, the other largest suppliers being Iraq, Iran, and Venezuela, 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 1959 reached 36.5 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 13.8 million tons in 1959, the chief factor being the large increase in power station usage; while the use of gas and diesel oil rose to over 3 million tons. Motor spirit sales rose to 7.1 million tons.

### **Refineries**

Before 1939, three-quarters of the United Kingdom's supply of petroleum products was refined overseas, as it was considered more economical at that time 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. The expansion programme in the United Kingdom carried out by the major oil companies between 1947 and 1958 cost nearly £300 million.

By the end of April 1960, refinery capacity in the United Kingdom amounted to some 43 million tons a year. Of the 15 refineries then in operation, six have a capacity of under 0.2 million tons. The largest are situated at Fawley, near Southampton (12 million tons), Shellhaven (8 million tons) and Isle of Grain (7 million tons), both on the Thames Estuary, and Stanlow (5 million tons), in Cheshire. A new refinery at Milford Haven, in Pembrokeshire, costing some £18 million and with a capacity of nearly 5 million tons, started in 1960.

Production of refined products rose from 4 million tons in 1948 to the record total of 35.3 million tons in 1959. 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 £100 million in 1959; imports of refined products were valued at £153 million.

### **Oil Pipelines**

There are at present three major oil pipelines 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)—are designed to carry crude oil from harbours capable of berthing very large tankers to existing refineries; and one, from Walton-on-Thames to London Airport, is designed to carry aviation fuel. In addition a pipeline from Shellhaven refinery to Romford gasworks carries refinery gas and gas-making products. The major oil companies are now interested in building pipelines to take refined products from refineries to major marketing areas, where the volume transported is sufficient to justify the capital cost. Among the new pipelines under construction or proposed is one to carry refined products between Stanlow, Cheshire, and Urmston, near Manchester; another is to take petroleum feedstock from

Fawley refinery to the £100 million petroleum chemicals project near Bristol; and another is to transport aviation spirit and aviation turbine fuel 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.

### 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, the development of new uses for oil and of new products based on oil, especially chemicals.

### ELECTRICITY SUPPLY

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.

It was not until after the first world war that steps were taken to reorganise the industry on a national scale in order to realise the benefits of concentration, integration and standardisation in electricity supply. 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'. Thenceforward, 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. 312). 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. 313). 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 200,000 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 and to promote and assist the maintenance and development by electricity boards in England and Wales of an efficient, co-ordinated and economical system of electricity supply. More specifically, 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 four to six members (mostly part-time), appointed by the Minister of Power.

*Area Consultative Councils* were set up under the Electricity Act, 1947, in the area of each board to represent the interests of consumers. They each consist of between 20 and 30 members, of whom between 40 and 60 per cent are nominated by local authority associations. The chairman of each area consultative council is an *ex officio* member of the corresponding area board. These arrangements continue under the Act of 1957.

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 plans and the industry's research programme; and to approve, in consultation with the Treasury, the boards' borrowing requirements, having regard to the development programmes submitted by the industry. The minister also has power to issue general directions to the council and the boards if he considers this necessary in the national interest.

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 1958-59, these surpluses amounted in the aggregate to over £125 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, a deputy chairman and not fewer

than four nor more than eight other members, 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, deputy chairman, and not fewer than four nor more than eight other members, appointed by the Secretary of State for Scotland.

Under the Electricity Reorganisation (Scotland) Act, 1954, the then Minister of Fuel and Power retained only three functions in regard to electricity in Scotland, namely, to act jointly with the Secretary of State on matters relating to staff pensions and to safety measures, and to remain solely responsible for the certification of meters.

A consultative council has been appointed for the district of each board by the Secretary of State, to represent the interests of consumers. The constitutions of these councils are similar to those of the area consultative councils, and the chairman of each is a member of the appropriate board.

#### *Northern Ireland*

In Northern Ireland, electricity is generated at power stations in Belfast and Londonderry and at Ballylumford, Larne 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, and the Electricity Board for the rest of Northern Ireland.

#### **Generation**

Most of Britain's electricity is produced in coal-fired steam generating stations. Abundant supplies of coal, together with good rail and water transport for moving it, in contrast to the remote and scattered location of relatively small water power resources, led to this preponderant development of electricity supplies from thermal generating stations. 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 1959 totalled 30,015 megawatts (MW), an increase of about 35 per cent since 1955. In each year recently about 2,000 MW of new plant have on average been brought into commission.

Sales of electricity in Northern Ireland (where the total installed generating capacity of 444 MW is in coal-fired thermal stations) amounted to 1,168 million kilowatt-hours in 1959.

In 1959, over 100,000 million kilowatt-hours, or slightly under 98 per cent of the public supply in Great Britain, was generated at conventional thermal stations, and the remainder from water power, diesel engines, nuclear stations and waste heat and refuse destruction. The high rate of expansion of output, which has been a feature of the industry since its earliest years, has been continued since the war. Total

production in 1959 was some ten times that of 1930, and had increased by 45 per cent since 1954.

### *Conventional Thermal*

The electricity authorities are the largest consumers of primary fuel in Britain, and although more than nine-tenths was coal, oil consumption rose from a negligible quantity in 1955 to 4 million tons in 1959. Average thermal efficiency of conventional steam stations in England and Wales (i.e. the ratio of power output to the fuel consumed) rose from 21.9 per cent in 1947 to 26.36 per cent in 1959 as new plant was brought into use. Twenty stations containing much of the newest plant had an average efficiency of 30.67 per cent in that year.

The Central Electricity Generating Board will have in commission by 1962 a generating set of 275 MW capacity, and, a year later, a 550 MW set is due to be commissioned at Thorpe Marsh, near Doncaster. The latter is much larger than any now in operation. These large machines will show substantial economies in capital cost, in fuel consumption and in operational costs. At present, the largest machine in operation is the 200 MW set at High Marnham, in the east Midlands. Station capacities are also increasing; the largest station under construction is the Drakelow 'C' station, which will have an ultimate capacity of some 1,500 MW and will use generating sets of 350 MW. Stations of 2,000 MW capacity are envisaged within the next few years.

### *Hydro-Electric*

The setting up of the North of Scotland Hydro-Electric Board in 1943 marked the beginning of a new 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 1959, 1,836 million units were generated from water power compared with 322 million in 1949. At the end of 1959, there were 48 full-scale hydro-electric stations in operation in Scotland with a total capacity of 988 MW and the largest—the Loch Sloy station—had a capacity of 130 MW; further hydro-electric schemes with a total capacity of 555 MW were under consideration and of 582 MW at the constructional stage.

### *Alternative Fuels*

To meet increasing demands for electricity, generation from primary energy sources other than coal is being developed. The chief alternatives are oil and nuclear energy. As regards oil, dual firing apparatus able to use either coal or oil has been installed in eleven new power stations, situated on river estuaries and thus able to be fed conveniently from nearby oil refineries. Another alternative, used in Scotland, is peat; a pilot gas turbine project at Altnabreac, Caithness, has been in experimental operation since June 1958.

### *Nuclear Power Stations*

As an extension of its experimental work and to produce plutonium, the United Kingdom Atomic Energy Authority (UKAEA) has built two stations which also produce electricity—at Calder Hall, Cumberland, and Chapelcross, Dumfriesshire, both of about 150 MW output capacity. The first started operating in May 1956 and was officially connected to the grid by the Queen in October that year; the second, Chapelcross, started supplying electricity in February 1959, and up to 1st June, 1960, these two nuclear power stations had produced over 2,500 million units of electricity for the national grid.



The main commercial power 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.

Six stations are under construction and another has been approved; all seven, with a total output capacity of about 3,000 MW, should be in operation by 1966. In June 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 at the rate of roughly 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 of 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, are due for completion by 1961. The Hinkley Point station (500 MW), in Somerset, and the Hunterston station (320 MW), in Ayrshire, should be in operation by 1963. Provision is being made for a possible doubling of capacity at Hinkley Point. At the end of June 1959, work started on a fifth nuclear power station at Trawsfynydd (500 MW), in North Wales, also expected to be completed by 1963. A contract has been placed for a 500/550 MW station at Dungeness, in Kent, which in addition to feeding current into the national grid will be linked with the power cable to France (see p. 316).

Consent has been given to the erection of a nuclear station at Sizewell, in Suffolk, and is being sought for one at Oldbury, in Gloucestershire.

Technical advances are already enabling nuclear power stations with greatly increased output to be constructed. Thus the stations at Dungeness and Sizewell are expected to have output capacities of about 550 MW (the largest so far projected in the world), and one of as much as 1,000 MW is envisaged for the second phase of the station at Oldbury.

Sites for additional stations are being considered at various points on the south coast of England and in North Wales. The Northern Ireland Electricity Board is planning to build a station on a site yet to be determined.

### *Pumped Storage*

In order that nuclear power stations with their higher capital costs and lower operating costs should be run as continuously as possible, pumped storage schemes are being developed. Construction of a 300 MW pumped storage scheme started at Blaenau Ffestiniog, near Trawsfynydd, in North Wales, in 1956, and suitable sites for other such 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, work on which started in May 1959.

Sites in Northern Ireland suitable for this type of project are being surveyed.

### **Transmission and Distribution**

Main electricity transmission lines—the National Grid—cover most of the country. In 1959, those of the Central Electricity Generating Board totalled some 6,300 route

miles (10,400 circuit miles), of which 819 miles were operated at 275,000 volts, 5,157 miles were operated at 132,000 volts and the remainder at 66,000 volts and below. In Scotland, there were 2,801 circuit miles of main transmission lines at the end of 1959, of which 170 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 North of Scotland control centre at Tummel Bridge and the South of Scotland control centre at Kirkintilloch.

The new 'supergrid' of main transmission lines at 275,000 volts will help to meet the growing demand for electricity during the next 20 years and will make the British electricity supply the most closely integrated power network in the world. A link interchange of energy by direct current by means of a single cross-Channel cable capable of transmitting up to 160 MW at 200,000 volts (direct current) is expected to be in operation by 1961. It is estimated to cost £4 million. 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, e.g., collieries. There are over 15 million consumers, an increase of about 6 million on those supplied in December 1939. Industrial concerns are the biggest users of electricity and their demands are increasing rapidly. 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 increasing rapidly.

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 1959, there were 384,242 consumers of electricity in the board's district and 66.9 per cent of the farms and crofts had a supply of electricity. At the same date the South of Scotland Electricity Board supplied 1,342,487 consumers, including about 93 per cent of the farmers in the area.

### Capital Investment

About 8 per cent of the annual gross fixed capital formation of the United Kingdom is 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 7.5 per cent. Capital expenditure by the industry over the eleven years 1956-67 is estimated at about £3,300 million, broadly made up as follows: transmission and distribution, £1,400 million; construction of power stations, £1,900 million.

The long-term capital of the electricity authorities is obtained from both internal resources and borrowing. Under the Finance Act, 1956, as amended by that of 1958, the authorities have power to raise money by means of Exchequer advances from the Minister of Power and the Secretary of State for Scotland. Since 1956, issues of stock have been suspended and the authorities have had recourse to Exchequer advances.

Total capital expenditure of the electricity supply industry in Great Britain from the time of its nationalisation (in 1947) to 31st March, 1958 (in the case of the council) and 31st December, 1957 (in the case of the boards) amounted to £1,922 million, of which nearly one-third had been financed from internal resources, leaving £1,331 million to be raised by borrowing. The Electricity (Borrowing Powers) Act, 1959, authorised an increase in maximum borrowings from £1,675 million to £2,150 million

and the minister is authorised, under certain circumstances, to raise this ceiling to £2,735 million.

In 1959-60 actual capital expenditure in England and Wales is estimated at £308.2 million, and expenditure approved for 1960-61 amounts to £275.4 million. In addition the expenditure on nuclear fuel in 1959-60 amounted to £6.4 million and it is expected that £9.6 million will be so spent in 1960-61.

Expenditure in 1959 by the North of Scotland Hydro-Electric Board totalled £13 million and £14.7 million had been approved for 1960; in 1959 by the South of Scotland Electricity Board it amounted to £27.4 million and £26 million had been approved for 1960.

### Research

The Electricity Council conducts research itself and helps to finance research through its membership of the British Electrical and Allied Industries Research Association, an organisation to which manufacturing firms and large consumers of electricity also belong and which was established before the supply industry passed into public ownership. This association is one of the autonomous research associations in receipt of grants from the Department of Scientific and Industrial Research. The Electricity Council also has an Electricity Supply Research Council including independent experts to advise it and the area boards, and can consult the Minister of Power's Scientific Advisory Council on problems affecting the supply and use of electricity. Direct research on a laboratory scale is carried on by the Central Electricity Generating Board at the Electricity Council's laboratories at Leatherhead, Surrey.

The Central Electricity Generating Board is establishing a new research centre, at a cost of £1 million, adjacent to the Berkeley nuclear power station in Gloucestershire. The centre will be used to investigate operational techniques and problems arising in the running of nuclear power stations.

The United Kingdom 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 middle of the century and 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 twenty years of the century, however, gas for lighting purposes was subjected to increasing 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 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 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. Together they cover the whole of Great Britain and are charged with a statutory duty to develop and maintain an efficient, co-ordinated and economical system of gas supply to domestic, industrial and other consumers. The central body is the *Gas Council*, which is 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 gas 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 charged with the responsibility of manufacturing gas and distributing it to consumers. Each of the Area Gas Boards, which, like the Gas Council, are 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 board is required to pay its way, taking one year with another.

When the gas industry came under public ownership, a link between the industry 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.

Although the Gas Council is not a trading body, the operations of the area boards have resulted, in the ten years up to 31st March, 1959, in an aggregate disposable surplus of approximately £23 million before taxation.

### **Production**

In 1959, in Great Britain, 22½ million tons of coal were carbonised by gas undertakings and 25½ 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.

In 1921, 250,300 million cubic feet of gas was manufactured by authorised gas undertakings or acquired from coke ovens, and the number of consumers was 7.6 million. By 1959, gas manufactured and acquired from coke ovens and other sources for distribution had risen to 580,000 million cubic feet and the number of consumers had risen to over 12.9 million, an increase of 130 per cent in the volume of gas available and of about 70 per cent in the number of consumers.

In 1959, the quantity of gas produced in Northern Ireland was 7,042 million cubic feet, most of it for household use.

The total number of persons employed in the gas industry in Great Britain in 1959 was about 130,000.

### Consumption

Half of all gas produced is sold for household use and the remainder for industrial and commercial purposes.

*Domestic Use.* While an accurate statistical analysis of the domestic load is not possible, evidence given before the Ridley Committee (on Fuel and Power Policy), appointed by the then Minister of Fuel and Power in 1951, suggested that about 70 per cent of the domestic load was 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. These difficulties have been overcome to some extent by the use of local high-pressure storage tanks but this development is unlikely to grow, owing to the steady extension of rural electricity supplies. 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 1959, industrial consumption of gas totalled 170,000 million cubic feet.

### Coke and By-products

Production of coke at gas works in 1959 was 10.1 million tons, and at coke ovens 17.9 million tons. The gas industry and coke ovens jointly produce about 3 million tons of crude coal tar and 108 million gallons of crude benzole a year. These products, together with those of the phenolic and basic types and sulphur, yield derivatives which include dyestuffs (of which Britain now produces most of its own requirements), fertilisers, plastics, germicides (the sulphonamides and sulphanilamides), insecticides, refrigerants, perfumes, and synthetic yarns.

With further research and development, more especially in the field of organic chemistry, the production of coal carbonisation derivatives is of great importance to the industry.

### Capital Investment

The chief object of capital expenditure in the years immediately after the war was to overtake arrears of plant renewal. Recent plans for expansion are outlined in the Gas Council's publication *Gas Looks Ahead*.

Under the Gas Act, 1948, borrowing by the Gas Council and the Area Gas Boards was limited to £250 million. The Gas and Electricity (Borrowing Powers) Act, 1954, extended these borrowing powers to £450 million.

The industry in recent years has been spending about £50 million a year on capital

investment. Between vesting day (1st May, 1949) and March 1960, £510 million had been invested in fixed assets. Expenditure of £53 million has been approved for 1960-61.

The Gas Act, 1960, increases the limit to £500 million or up to £525 million if authorised by Order in Council in the period up to 31st March, 1966.

### Development and Research

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. Progress is also being made in interconnections for the reception of gas from coke ovens, notably in Wales, Durham and Yorkshire.

The industry is investigating processes of gasifying coal of inferior quality. At Westfield, in Fife, Scotland, a gas plant, costing £6.6 million, and using low-grade coal, was expected to be in production by the end of 1960 and, when completed in 1962, will be producing 30 million cubic feet of gas a day, about one-fifth of the total gas requirements of Scotland. The plant marks a change within the industry 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. Provision has been made for the erection of a similar plant by the West Midlands Gas Board 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 the purchase 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, to convert petroleum products to gas of acceptable quality. This installation, which began operating in 1958, converts some 50,000 tons of petroleum products a year and has a daily output of 18 million cubic feet of gas.

The world's first shipload of liquid natural gas arrived at Canvey Island, Essex, from the United States Gulf Coast, in February 1959 in a specially converted 3,000-ton cargo ship, the *Methane Pioneer*, owned jointly by the Gas Council and an American concern. A number of further shipments have been made.

The Gas Council's research organisation consists of a research committee which advises on 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. The main object of the council's research is the development of new processes making use of poorer quality coals and of alternative primary fuels.

### FUEL EFFICIENCY

The Government has for a number of years sought to promote efficiency in the use of fuel, among both industrial and domestic users, and has been assisted by various bodies representative of producers and consumers.

The *Coal Utilisation Council* consists of representatives of the National Coal Board, coal distributors and coal appliance manufacturers. It was originally formed in 1932



to give information and advice on the best use of solid fuel, including the choice of installation and the operation of solid fuel appliances, to domestic users and to retailers.

A non-profit-making company, the *National Industrial Fuel Efficiency Service*, which was formed to promote fuel saving in industry, came into operation in May 1954. 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, however, are often distant from the areas where supplies are needed, 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.

### Development 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 separate large water undertakings were set up to provide adequate supplies of pure water to the expanding urban population, and the water supply system developed rapidly, although in piecemeal fashion and with some overlapping and waste.

### Organisation of Water Supply in England and Wales

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 a water undertaking themselves or by ensuring that other bodies are providing an adequate supply. 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.

By 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. The same Act provided for a statutory Central Advisory Water Committee (replacing the previous non-statutory committee) to advise the minister on general questions relating to water and to deal with the local organisation of water supplies and the powers and duties of local authorities and other water concerns. Local authorities were required, in extension of the duties placed on them under the Public

Health Acts, to secure piped wholesome water in every part of their districts where there were houses or schools, unless it was impracticable to do so at reasonable cost.

In the years between the passing of the Water Act and 1960, 404 smaller water authorities in England and Wales were absorbed by larger authorities or by the creation of joint boards. The principal object of such amalgamation is the constitution of more efficient units in the water supply industry, and efforts to reduce the number of separate undertakings have recently been intensified.

In March 1960, there were, in England and Wales, 685 local authority water undertakings, 73 joint water boards (including bulk supply boards) and 10 joint water committees, 61 statutory water companies, 14 non-statutory water companies, and 3 private proprietors with statutory powers. A considerable number of private proprietors without statutory powers also provide small supplies. Water undertakings vary greatly in size; about half the population is served by the 48 largest undertakings, and the other half by over 790 smaller ones.

The *Metropolitan Water Board*, which is probably the largest single water undertaking in the world, supplies about 340 million gallons daily to about 6.5 million people in the London area. The board was established in 1903, and in the following year took over the undertakings of eight water companies which were supplying the London area. It now 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. The chairman and vice-chairman are chosen by members of the board.

### **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.

Between £40 and £50 million a year is spent on capital investment, financed mainly by loans, the interest on which, together with running costs, is paid by the water undertakings from annual income. This income is derived from local water rates levied on domestic consumers and from charges for supplies as recorded by meter in the case of most industrial users. In addition to supplies from water undertakings, large quantities of water are taken by industry from rivers or underground sources.

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 1960, schemes costing £80 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 and some diminution in supplies in so far as such growth involves covering the ground with impervious material, so that water which previously would have percolated through to underground natural reservoirs is now carried off in drains and rivers. On the other hand, improved methods of purification in recent years have resulted in greater use being made of water drawn from the lower reaches of rivers. In 1955, a sub-committee was set up by the Central Advisory Water Committee to study the growing demand for water and the problems involved in meeting it. In its first report, *The Growing Demand for Water*, published in 1959, the sub-committee stated that in spite of an expected 23 per cent increase in consumption of water in the ten years ending 1965, development schemes prepared by the public water suppliers should enable them amply to meet likely demands. After 1965, the country's rainfall would be sufficient to ensure an adequate supply of water to meet growing needs, provided that the proper means of conservation and distribution were

developed. The danger of serious depletion of the natural flow of many rivers and streams by abstraction of water for such purposes as irrigation was the subject of the sub-committee's second report, published in June 1960, and a recommendation was made that private abstractions should be controlled.

### **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 save that less reliance needs to be placed on underground sources. Scotland has separate legislation. 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 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 1959, the total value of work done on new and improved water supplies since 1945 amounted to £49.3 million, of which £23.6 million represents works aided by grants under these Acts.

Northern Ireland has abundant supplies of water. The Water Supplies and Sewerage Act (Northern Ireland), 1945, in addition to making provision for the payment of Government grants to all water supply authorities, places upon them statutory obligations with regard to the supply of water to houses and schools. Since 1945, a piped water supply has been, or is being, provided for every town, and in rural areas piped water supplies are being extended. Progress has been very rapid, and by 31st March, 1960, £24.8 million had been expended, including grants totalling £10.6 million.

### **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 reservoir 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. A close liaison is maintained between these organisations.

A report by a sub-committee of the Central Advisory Water Committee, *Information on Water Resources*, published in 1959, proposed that steps should be taken to review current research work and to determine how such work should be co-ordinated. The sub-committee recommended certain extensions of existing facilities for recording rainfall, snowfall and underground water and for measuring river flows.



## Water Pollution

It is an offence for any person to permit any polluting matter, solid or liquid, to enter a river. The Rivers (Prevention of Pollution) Act, 1951, revised and strengthened previous legislation for the prevention of river pollution in England and Wales. Enforcement of the Act is vested in the river boards (see p. 288), the Thames and Lee conservators, and, in London and adjacent areas, in the councils of the metropolitan boroughs, counties, and county boroughs concerned. 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. The laboratory maintains close contact with other interested Government departments, with municipal and other public authorities and with industry. Research is carried out with general supervision and advice from the Water Pollution Research Board of the Department of Scientific and Industrial Research. The board was set up in 1927 and its members are appointed by the Lord President of the Council.

The Standing Technical Committee on Synthetic Detergents (appointed by the Minister of Housing and Local Government after consultation with the Secretary of State for Scotland) issued its third progress report in April 1960. The report gives an account of a large-scale experiment being carried out in Luton with the help of manufacturers of synthetic detergents. An alternative material, more readily decomposed in treatment of sewage than the material now in general use, has been incorporated in most of the synthetic detergents on sale there. It is tentatively concluded from the experiment that general use of the alternative material would reduce substantially the difficulties of water pollution associated with synthetic detergents. Further research is being undertaken.

## CONSTRUCTION

The construction industries are concerned primarily with the construction and repair of houses, hospitals, schools, offices, shops and factories, and with civil engineering works such as bridges, docks, harbours, railways, roads, airports, power stations, hydro-electric schemes, irrigation systems, and atomic energy establishments. The industries employ some 1½ million persons (including about 70,000 women) and provide over 6 per cent of the gross domestic output of goods and services. 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 30 per cent of the firms in the industry are one-man businesses engaged in such trades as house painting or plumbing, and over 60 per cent employ fewer than nineteen persons. At the other end of the scale there are fewer than a dozen firms of building and civil engineering contractors employing more than 5,000 persons each on the permanent staff. 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 about 200 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 and quantity surveyors which are concerned with the design, planning and costing of building and civil engineering projects.

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. One example is the consortium of 13 firms engaged in manufacture or construction set up to build a steelworks at Durgapur, India, which will have an annual capacity of 1½ million tons.

### **Value of Output**

The value of the annual output of the industry has been rising fairly steadily since 1945, and the total for Great Britain in 1959 is estimated to amount to £2,394 million. Of this total £418 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 £1,976 million represents the output of private firms (new work, £1,514 million, and other work, £462 million).

### **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. About 15 per cent of local authorities employ direct labour in housing construction, while about 70 per cent use their own labour for repair and maintenance. In 1959, the value of new housing built in Great Britain by private firms was £568 million, of which £245 million was for private owners and £323 million for public authorities.

Between 1945 and the end of 1959, some 3,470,000 new permanent houses and other dwellings were built in the United Kingdom (including over 80,000 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.

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 the important civil engineering projects under construction in the United Kingdom in 1960 were: the Whiteinch Tunnel, under the river Clyde at Glasgow; the Dartford-Purfleet Tunnel under the Thames; the road bridge over the Firth of Forth; a 5 million ton capacity oil refinery at Milford Haven and large steelworks in Wales and Scotland. Some £75 million will be spent in 1960-61 on new motorways and road reorganisation (see pp. 374-5). Investment programmes of the nationalised industries in coal, hydro-electric development, nuclear power stations and rail transport also involve constructional work on a large scale.

In Great Britain since the war, more than 20,000 industrial buildings of over 5,000 sq. ft. (with a total area of almost 447 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 schools, 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.

Examples of large contracts in recent years include: hydro-electric schemes at Owen Falls (Uganda), and Hirfanli (Turkey); dock extensions at Calcutta and Bombay (India); harbour works at Takoradi and Tema (Ghana), and Aden (one of the largest bunkering stations for oil in the world); a new port at Salaverry (Peru); thermal power stations at Pretoria and Johannesburg (South Africa); a geothermal power station at Wairakei (New Zealand); dry docks at Karachi (Pakistan); houses, airfields, roads and bridges, and the drilling of oil wells to the value of £25 million in Iraq; modernisation of the trunk road system, the construction of a natural gas pipeline and the building of a fertiliser factory in Iran; industrial estate development in Annacis Island (Canada); 12-storey office blocks in Toronto (Canada); irrigation schemes for sugar and citrus estates in Southern Rhodesia; an oil refinery at Rio de Janeiro (Brazil); a pharmaceutical products factory in Iran; the Auckland harbour bridge (New Zealand), opened in May 1959; the Adomi bridge across the river Volta (Ghana); a mile-long road bridge costing £5¼ million over the river Niger, and the construction of a breakwater costing £8 million (Nigeria).

It has been estimated that the value of work done during the year ended March 1960 by some 67 principal British building and civil engineering firms, operating in some 70 countries, was nearly £124 million, compared with £120 million in the



previous year; and the value of contracts obtained rose from £115 million in 1958-59 to £131 million in 1959-60. Most of the work done was in the sterling area, although about 30 per cent was in the dollar area.

Among the major projects on which British consulting engineers have been engaged in recent years are the hydro-electric scheme at Kariba and the power development, irrigation and flood control project in Shire Valley (both in the Federation of Rhodesia and Nyasaland), the Kai Tak airport at Hong Kong, and the trans-Iranian pipeline survey.

In 1959, Britain exported prefabricated buildings to the value of £3.8 million.

### **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 research. Work affecting the construction industries is also carried on in other research laboratories connected with the DSIR, including the National Physical Laboratory, the Road Research Laboratory, the Forest Products Research Laboratory, the Geological Survey and Museum, the Water Pollution Research Laboratory, the Fire Research Station and the Hydraulics Research Station. Other bodies concerned with such research include the Admiralty, universities and colleges of technology, trade associations and individual firms.

The largest building firms' practice of maintaining their own research and development groups has developed chiefly during the past decade. These groups are mainly concerned with the control of site operations and the development of particular systems of production. Advances in the design and construction of special types of building have been made by specialised development groups such as the Ministry of Education's development group on schools. Such groups work in close collaboration with the Building Research Station.

An example of fruitful collaboration is the research on concrete manufacture conducted over more than twenty years by the Building Research Station and the Road Research Laboratory in conjunction with United Kingdom universities and the Cement and Concrete Association.

Some major advances in technology and materials have been made in recent years, for example, in the mechanisation of earth excavating and site clearance, in the development of mobile hoists, in road-making techniques, in methods of welding, in concrete mixing and by the introduction of unit construction processes for bridge building. New materials and new techniques, including prefabrication, are being developed and applied in the construction of schools, hospitals, factories, offices and shops, as well as in the building of permanent houses.

The principal professional body in the civil engineering industry is the Institution of Civil Engineers, incorporated by Royal Charter in 1828.

## **MANUFACTURING INDUSTRIES**

The United Kingdom's manufacturing industries provide an exceedingly wide range of products, many of which play a major role in world trade. In terms of net output and exports the most important groups of industries are those concerned with the manufacture of metals and metal products, though the textile and chemical industries are also of considerable significance. Some impression of the relative importance of the different groups in terms of the value of net output is given in

Table 22, which is based on the results of the Census of Production for 1954 and the provisional results for 1958.

TABLE 22  
VALUE OF NET OUTPUT OF INDUSTRY GROUPS IN 1954 AND 1958

	1954	1958	
	£ million	£ million	Percentage of total
Food, drink and tobacco .. .. .	655.8	940.0	12.1
Chemicals and allied industries .. .. .	538.6	734.9	9.5
Metal manufacture .. .. .	528.9	703.6	9.0
Engineering and electrical goods .. .. .	1,287.5	1,698.4	21.9
Shipbuilding and marine engineering .. .. .	187.2	227.6	2.9
Vehicles .. .. .	644.5	799.5	10.3
Metal goods (not elsewhere specified) .. .. .	355.8	434.2	5.6
Textiles, clothing and footwear .. .. .	892.4	892.0	11.5
Paper, printing and publishing .. .. .	443.3	561.4	7.2
Other manufacturing industries .. .. .	655.8	780.4	10.0
TOTALS .. .. .	6,189.8	7,772.0	100.0

Source: *Board of Trade Journal*.

The pattern of manufacturing industry has changed markedly in response to technological progress, new demands from home and export markets and the introduction of new and improved materials. The rate of expansion has been especially rapid in electronics and in most sections of electrical engineering, in almost all branches of the chemical industry and in the aircraft and motor vehicle industries.

Expansion has been particularly marked in those industries which are in a position to make use of automation equipment, for example, transfer machines, the linking of machine tools in automatic production lines, the use of electronic control equipment and electronic data-processing machines. In several industries, such as oil refining, steelmaking, motor vehicles, electronic components and chemicals, automation has been introduced on a wide scale.

#### METAL MANUFACTURE

The metal manufacturing industries employed nearly 600,000 persons at the end of 1959. Nearly three-quarters of these were engaged in the iron and steel industry, including iron founding.

#### 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 series of discoveries which led to the great expansion of steelmaking in the second half of the nineteenth century. Today, Britain is one of the world's four largest producers of steel. Production of crude steel, which in 1946 totalled 12.7 million ingot tons, rose to 21.7 million ingot tons in 1957, falling back to 19.3 million ingot tons in 1958 and to

20.2 million ingot tons in 1959; capacity is available to produce about 25.5 million ingot tons. Pig iron production rose from 7.8 million tons in 1946 to 14.3 million tons in 1957; output in 1959 was 12.6 million tons. In 1959, direct exports of steel amounted to 3.7 million ingot tons valued at £172 million, in addition to indirect exports, estimated in 1959 to amount to the equivalent of 4.1 million ingot tons, in the form of sales by the steel-consuming industries; exports of the machinery industry (other than electrical machinery), and of the shipbuilding and vehicle industries, which are major consumers of steel, were valued at over £1,000 million in 1959.

South Wales and the north-east coast of England are the United Kingdom's two largest steel-producing areas, together responsible for an annual crude steel production of nearly 8.4 million ingot tons, or more than 40 per cent of the total output. South Wales is engaged mainly in the production of flat products, and is especially noted for tinplate. In the north-east coastal area of England, production is concentrated on heavy sections and rails, and plates for the shipbuilding and other industries. Scotland, with an annual production of over 2 million ingot tons, finds its chief internal markets in the shipbuilding and engineering industries of the Clyde valley. Sheffield is known throughout the world for its special alloy steels. Two other areas with a substantial share of output are north Lincolnshire and Lancashire. Britain possesses some of the most up-to-date steel plants in Europe; for example, the £18 million universal beam mill near Middlesbrough, in the north-east of Yorkshire, for the production of structural steel, which came into operation in 1958, the steelworks at Ravenscraig near Motherwell, Scotland, completed in 1957 at a cost of £22.5 million, and the integrated strip mill at Margam in South Wales.

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, which had continued to operate as separate units, to private ownership. By March 1960, there remained 11 companies, of which two are major companies, in which the agency had direct holdings.

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. The board is responsible to the Minister of Power and includes, in addition to the chairman and one other full-time member, a number of part-time members drawn from steel producers, steel consumers and trade unions. The major trade association in the iron and steel industry, excluding iron founding, is the British Iron and Steel Federation.

It is estimated that by 1962, over £1,000 million will have been spent on development and modernisation since 1945. Expenditure in 1959 was about £100 million and a substantial increase was expected in 1960. Crude steel capacity by 1962 should approach 29 million tons. The growing demand for flat-rolled products is being provided for by the construction of two new wide-strip mills in Wales and Scotland, and it is estimated that these, together with extensions to existing mills, will raise production to 4.9 million tons of sheet and tinplate by 1962, rising to 6.1 million tons by 1965. The industry plans to increase its consumption of home-produced ore from nearly 15 million tons in 1959 to 21 million tons by 1962, and that of foreign ores from nearly 13 million tons (in 1957, nearly 16 million tons) to between 21 and 23 million tons. The industry's long-term programme provides for a fleet of 72 special ore carriers; 50 were in service at the end of 1959.



Some 300,000 people were employed in 1959 in iron and steel manufacture (excluding iron foundries). Of these, about 150,000 are process workers and 100,000 general and maintenance workers.

Notable recent developments in steelmaking include the increasing use of oxygen, not only in its application to conventional steelmaking processes, but also in the pneumatic processes. The relatively new process of continuously casting steel, which removes the necessity for the primary rolling plant, is to be installed on a commercial basis by several firms.

### **Iron Founding**

Iron castings are required by most branches of the engineering industry, and especially in the manufacture of motor vehicles, tractors, machine tools and power units of all kinds; they are also used by the steel industry. There are some 1,500 firms in the industry, ranging from small units to foundries employing over 1,500 people. About 128,000 people were employed at the end of 1959. Iron foundries are found in all parts of the United Kingdom, but there is some concentration in the Midlands and other engineering centres.

Output of iron in castings fell back to 3.5 million tons in 1959 (compared with 3.93 million tons in the peak year of 1955), as a result of a reduced demand in some trades. Over one million tons are used annually in the general engineering industry, nearly 700,000 tons in the motor vehicle industry and 400,000 tons in the steel industry; about 550,000 tons are required by the building industry.

### **Non-ferrous Metals**

The non-ferrous metals industry in Britain, employing some 128,000 persons, is the largest in Europe and in 1958 contributed over £142 million to the net national output.

Nowadays the mining in Britain of non-ferrous ores is confined to the working of lead, tin and tungsten ores on a small scale. However, the United Kingdom is a large consumer of non-ferrous metals, being second only to the United States among Western countries in its consumption of aluminium, copper, lead, tin and zinc. Production in 1959 included the following: aluminium, 25,000 tons of virgin metal and 107,000 tons of secondary metal; refined copper, 96,000 tons of virgin copper and 97,000 tons of secondary metal; lead, 89,000 tons of refined metal; zinc, 73,000 tons of slab metal; and tin, 28,000 tons. In almost every case, output in 1959 was well below the peak level of previous years.

Nearly half of the industry is situated in the Midlands; other centres include South Wales, London, Tyneside and Avonmouth. It consists mainly of factories for smelting, casting and fabrication by rolling, extrusion and drawing of the metals mentioned above, and of nickel and magnesium. The techniques of powder metallurgy and pressure diecasting are also employed where appropriate. Some of the 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 their own 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 plants in the world for the preparation of zirconium and beryllium.

In 1959, direct exports of non-ferrous base metals (including semi-fabricated products) were valued at £113 million, of which copper and its alloys accounted for

£50 million, aluminium and its alloys for £16 million, nickel for £16 million and tin for £25 million. The United States (£23.5 million) and Western Germany (£14.2 million) were easily the largest purchasing countries. In addition there were further substantial exports of finished products incorporating non-ferrous semi-manufactures and of non-ferrous metals in many fabricated forms.

### SHIPBUILDING, SHIP REPAIRING AND MARINE ENGINEERING

Britain has for centuries been one of the most important shipbuilding countries. Modern shipbuilding dates from the middle of the nineteenth century, when the iron-clad steam-driven vessel replaced the earlier sailing ship. Britain led the way in the substitution of steel for iron and in the development of the steam turbine. Between 1890 and 1913 Britain produced more than half the world's new tonnage, and in 1920 launched over two million tons, still the peace-time record for the industry. In the inter-war years the problem of surplus capacity, common to all shipbuilding countries, caused a substantial fall in activity and periodic heavy unemployment. During the second world war the industry was fully occupied in building and repairing warships and merchant ships and a high level of activity in the building and repair of merchant ships has been maintained since 1945. At the end of June 1960, 1.9 million gross tons were under construction.

Well over three-quarters of the tonnage of ships built in the United Kingdom comes from four areas: on the river Clyde in Scotland (where the *Queen Mary* and *Queen Elizabeth*, the world's largest ships, were built in the inter-war years; on the north-east coast of England—along the lower reaches of the rivers Tyne, Wear and Tees, and at West Hartlepool, and Blyth; on the north-west coast of England—on the river Mersey, and at Barrow-in-Furness, where the *Oriana* was launched in November 1959; and at Belfast, in Northern Ireland, where the largest individual shipyard is situated.

In each of these areas there is capacity for building warships and all types of merchant ships from large passenger liners and tankers to small sea-going ships such as coasters and cross-Channel steamers. 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 places along the coast build fishing vessels, yachts, harbour craft and barges. Repair yards and dry docks are situated in all the great ports. The majority of the fourteen largest firms engaged in repair work also carry on shipbuilding work, and about one-quarter of ship repairing activity is concentrated on the north-east coast of England. The recession in shipping in 1958 and 1959 led to reduced activity in ship repairing, and the numbers employed fell to about 64,000 by February 1959.

In 1959, there were about 205,000 persons employed in the shipbuilding and ship repairing industries, including those employed in naval dockyards, and about 82,000 in marine engineering.

Between 1945 and 1959, British shipyards launched over 18 million gross tons of shipping, including more than 4 million gross tons for foreign owners.

Output had been held back on account of shortages of steel, skilled labour and components, and launchings in 1959, at approximately 1.4 million gross tons, did not represent the industry's full capacity. Of the ships launched in 1959, 39 per cent were oil tankers. The value of exports of ships and boats in 1959 totalled £48 million.

Over the past twenty years, traditional methods of shipbuilding have undergone radical changes, primarily due to advances in welding technique. These have led to the production of ships in large units, 50 to 60 tons in weight, prefabricated under cover and rapidly assembled for launching. The industry is spending large sums on

the modernisation and mechanisation of shipyards: £50 million was invested in the period 1946-57 and it is planned to spend about £70 million in the following five years, including the construction of berths for the building of tankers of up to 100,000 gross tons. In 1959 and 1960, United Kingdom shipyards launched several liners of more than 20,000 gross tons, including the 46,000 gross ton *Canberra* (built at Belfast), the largest liner to be built in Britain since the *Queen Elizabeth*, launched in 1939.

The British Shipbuilding Research Association (BSRA) is engaged in all aspects of shipbuilding research, and the Parsons and Marine Engineering Turbine Research and Development Association (Pametrada) are developing gas turbines and improving the efficiency of diesel and steam units. The Government has invited tenders for two types of nuclear reactor suitable for installation in a tanker of 65,000 d.w.t.

### MECHANICAL ENGINEERING

Mechanical engineering comprises a very wide range of industries, including agricultural machinery, machine tools, engineers' small tools and gauges, industrial engines, textile machinery and accessories, office machinery, refrigerating machinery, industrial plant and steel work, ordnance and small arms, construction plant and quarrying machinery, mechanical handling equipment, scientific, surgical and photographic instruments, and watches and clocks. The total number of persons employed in mechanical engineering in 1959 was about 1,200,000, and the value of exports exceeded £625 million.

#### Agricultural Machinery and Tractors

The agricultural machinery industry employs about 37,000 people and in 1959 its annual output, including both machinery and tractors, was valued at the record level of £163 million, of which over half was accounted for by tractors. Britain has some of the most up-to-date tractor manufacturing plants in the world, and three of the five largest manufacturers are also makers of motor vehicles. In 1959, production of tractors, almost all of which were diesel-powered, totalled 216,000 and exports amounted to 116,000. The United Kingdom exported more tractors in that year than the rest of the world together.

Agricultural machinery and implements are manufactured in several areas, with some concentration in Lincolnshire, East Anglia, and the north of England. In 1959, 4,400 combine harvesters and 23,800 mouldboard ploughs were produced, while the output of pick-up balers totalled 13,940, an increase of 75 per cent over 1957.

Exports of agricultural machinery and tractors in 1959 totalled £103 million—a record; of this total, £65.5 million was accounted for by tractors, £21.1 million by tractor parts and £15.9 million by machinery and implements. The largest markets for British tractors are the Scandinavian countries, North America, Australia and South Africa.

#### 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 transfer lines for motor vehicle manufacture and electronically controlled machine tools giving accuracies of one ten-thousandth part of an inch.

There are some 350 separate firms making machine tools, but the greater part of the industry's output comes from about 150 firms. The high degree of specialisation



makes it possible for the small firm to flourish. About 42,000 workers are employed. 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 of the machine tool 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 value of deliveries of metal-working machine tools rose from £6.5 million in 1935 to £95 million in 1957, falling back to £79 million in 1959, owing to recession in home and export markets in the previous two years. Deliveries for export in 1959 amounted to £18.6 million, while orders on hand at the end of 1959 totalled nearly £56 million, of which nearly 30 per cent was for export. A substantial expansion in total output and in exports is expected in 1960.

Substantial expenditures on plant and buildings have been made in recent years; it is estimated that the value of the capital employed in the industry trebled between 1948 and 1957, and by 1960 will amount to some £93 million.

### **Industrial Engines**

United Kingdom manufacturers have a world-wide reputation for small marine and industrial internal combustion engines, in particular for lightweight diesel engines. The value of deliveries of industrial engines, including small marine engines, rose from £27 million in 1948 to the record level of about £56 million in 1959, including about £20 million for direct export. In addition, indirect exports accounted for a further £9 million. The number of engines delivered in 1959 was 372,000. Production of parts and accessories accounted for a further £16 million.

### **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. The industry now gives employment to about 53,000 people and comprises about 450 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.

The industry enjoys a world-wide reputation, not only for the high quality of its products but also because it offers a complete and modern range of equipment consisting of: spinning machinery, including machinery for all the preparatory processes; winding machinery and machinery for other processes prior to weaving; weaving machinery; knitting, hosiery and lace machinery; printing, dyeing and other finishing machinery; and all types of mill stores and textile machinery accessories. In 1959, deliveries (including accessories) totalled £72 million. Exports were valued at £41 million, with India, the USSR, Australia and Western Germany as the largest markets.

### **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. But today many new machines, especially machinery for earth-moving, are in production; examples are crawler tractors, motor

graders, scrapers, trenchers, dozer equipment, dumpers, rippers and rooters. About 24,000 people are employed in the industry.

Whereas output in 1935 was valued at only £2 million, in 1959 it reached nearly £91 million, of which about half was for export. The most important items were earth-moving machinery, about 30 per cent of the total value, and excavators and parts (about one-quarter of the total). Excavators are the largest single export product by value.

### **Office Machinery**

The United Kingdom office machinery industry is now second in size only to that of the United States, and since 1946 has expanded at a remarkable rate. In 1959, the value of deliveries of office machinery (such as accounting machinery, punched-card machinery and some types of electronic computers, typewriters, dictating machines, and duplicating and copying machinery) was £60 million, of which £23 million worth was exported, including £3.3 million worth to Canadian and United States markets: over half of the value of output is from accounting and similar machinery. Output of portable typewriters, which has increased by 40 per cent since 1955, and of standard machines are at about the same level, 130,000 and 145,000 respectively in 1959; more than half the typewriters manufactured are for overseas, and exports in 1959 were valued at about £3.2 million. British subsidiaries or associates of United States firms are prominent in the office machinery industry.

### **Refrigeration Machinery**

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. 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.

The value of deliveries of refrigeration machinery in 1959 totalled over £59 million, an increase of about one-third above the previous year's figure; more than half consisted of domestic refrigerators which numbered 934,000, against only 360,000 in 1957. Export deliveries were valued at £12.6 million, and represented about one-fifth of the output.

### **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. About 90 per cent of the United Kingdom production is made by 63 firms, mainly situated in the Midlands, Glasgow and the north of England; some 15,000 persons are employed in this branch of the engineering industry. The value of deliveries in 1959 was estimated at about £35 million.

Exports more than doubled between 1949 and 1959, when they were valued at £11.3 million. The United Kingdom ranks third to the United States and Western Germany in world exports of industrial valves, and accounts for about one-fifth of the total.

### **Boilers and Boilerhouse Plant**

Boilers and boilerhouse plant manufactured in the United Kingdom have many industrial applications. Water tube boilers of advanced design and large steam-raising

capacity are produced by the industry for home power stations and for export. Firms in the industry are members of the groups formed for the purpose of building nuclear power stations, both in the United Kingdom and overseas. Shell boilers are used for steam raising and heating purposes in factories and in buildings. Items of steam-raising plant accessories produced include plain and corrugated boiler furnaces, forced draught boiler furnaces and grates, stokers, fuel economisers and preheaters, superheaters and desuperheaters, pulverisers, coal and ash handling plant, soot blower equipment, steam pipework, and feed water heaters.

In 1959, production of shell boilers and boilerhouse plant, much of which is used in the construction of complete installations, was valued at £25 million, and production of water tube boiler installations at £59 million. Exports in the same year were valued at £15.1 million, of which £5.7 million was accounted for by water tube boilers. Over half the exports went to Commonwealth countries, South Africa being the largest market.

### **Nuclear Power Station Plant**

The design and construction of nuclear power stations is one of the outstanding present-day enterprises of British industry. Five major groups of firms were formed for this purpose, consisting of leading firms in the heavy electrical engineering, civil engineering, boiler, instrument, and associated industries. Some of the original groups have since joined forces, and for practical purposes there are now only three. In addition to the nuclear power stations being built for the United Kingdom electricity authorities, these groups are building such stations in Italy and Japan. Design teams from the companies concerned have been trained by the United Kingdom Atomic Energy Authority in the design of gas-cooled graphite-moderated reactors, and the authority grants them non-exclusive manufacturing licences and keeps them informed of the results of further research and development work. Industrial firms themselves are also engaged on research into a range of problems relating to nuclear energy.

Other concerns have also joined together to carry out research into nuclear developments and to supply nuclear power plant. Several companies have designed, or have designs under study for, small nuclear power stations of 11 to 60 MW capacity to be used for electricity generation. A number of designs have also been produced for reactors for marine propulsion. Companies have also been established for the manufacture, machining and preparation of graphite for use in reactors. The services of United Kingdom firms of consulting engineers are being utilised for specification planning, inspection and advice.

The Nuclear Energy Trade Associations' Conference (NETAC) was formed towards the end of 1956 to establish a permanent means of liaison and to pool more effectively the experience of nuclear development among the firms and trade associations concerned.

### **Iron, Steel and Non-ferrous Metal Works Plant**

As a major steel-producing country, Britain has an expanding industry for the manufacture of steelworks plant. Up to 1939, production fell considerably short of internal requirements. The post-war modernisation and expansion of the United Kingdom steel industry have led to the rapid development of the steelworks plant industry, which today provides about nine-tenths of Britain's requirements for steel-making equipment and can supply complete plant as efficient and economical in operation as any in the world.

Some 40 firms produce equipment for making steel in all its stages. In 1945, six of these firms, together capable of supplying the entire range of steel-making plant,



formed the Metallurgical Equipment Export Company Limited (MEECO) to co-ordinate export operations and to facilitate the placing of foreign orders in the United Kingdom for complete steelworks. This group of firms has carried out a number of large contracts for equipping steelworks in Sweden, Norway, Spain and France. It forms part of the consortium of British engineering firms constructing the £100 million steel plant at Durgapur, in India.

The value of deliveries of steel and non-ferrous metal works plant, including rolling mills, amounted in 1959 to about £51 million, of which over one-quarter was exported.

### **Petroleum Equipment**

Before the second world war, the production of specialised equipment for the oil industry was on a small scale, but the rapid expansion in oil production and refining throughout the world has given rise to a substantial export business in British fittings and plant. The range of products supplied by the engineering industries include specialised equipment for oil drilling, valves, pumps, meters and gauges, equipment for oil refineries, and storage tanks. Britain ranks second to the United States as a supplier of equipment for the petroleum industry.

### **Chemical Plant**

Some 250 firms are engaged in the highly specialised chemical engineering industry, which designs and supplies all types of plant and equipment for use in the manufacture of chemicals. The range of activities includes the manufacture of distillation columns, heat exchangers, high vacuum drying equipment, and plants for the manufacture of fertilisers, petroleum chemicals, sulphuric acid and other basic chemicals. The value of deliveries of chemical plant in 1959 was about £37 million.

### **Scientific and Industrial Instruments**

Scientific instruments have been made commercially in Britain for over three centuries, early products being chiefly navigational and optical instruments. The last twenty years have brought a large-scale expansion of capacity in every branch of the industry to meet defence needs during the war and, later, the expanding world demand for all types of instruments (optical, mechanical, pneumatic, electrical, electronic and nucleonic), for both pure and applied science. The sector which is expanding most rapidly is that making industrial instruments—an essential element in the movement towards full automation in industry. British scientific instrument manufacturers can supply all types of instrumentation for research, and of control or automatic devices.

In 1959, total deliveries from scientific and industrial instrument manufacturers amounted to £94 million, representing an increase in volume of 17 per cent since 1956. Deliveries for export were worth £22 million, one of the largest items being aeronautical instruments. The value of deliveries of industrial process control instruments, including those made by the manufacturers in the electronics industry, totalled £37 million. Manufacturers in the office machinery and electronics industries contributed a substantial proportion of the deliveries of electronic computers, which amounted to £8 million in value in 1959.

### **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 15,000 people, the great majority skilled craftsmen, and many of the factories are located in the develop-

ment areas (see p. 256), and particularly in Scotland. In 1959, 8.6 million clocks and watches, including 2.6 million watches and over 5.0 million mechanical clocks, were produced, and together with time switches and recorders had a total value of £12.8 million. Exports were valued at about £2 million.

### ELECTRICAL ENGINEERING

The United Kingdom electrical engineering industry is engaged in the manufacture and installation of a wide variety of electrical equipment, ranging from giant generators to domestic appliances and the smallest components of radio receivers. The total value of its output has risen from about £155 million in 1938 to nearly £1,400 million in 1959, and the volume of production was about 39 per cent higher than in 1954. It exports large quantities of power-station equipment and other electrical machinery and appliances to all parts of the world. In terms of monetary value it is one of the two largest exporters of electrical goods in the world, and sends overseas about a quarter of the value of its output, compared with less than one-eighth in the immediate pre-war period. The value of exports of all types of electrical equipment in 1959 exceeded £285 million, compared with a previous record of £279 million in 1957.

Altogether the industry employs a labour force of more than 770,000, including 213,000 engaged in the manufacture of electrical machinery, and 230,000 in the production of radio and other electronic equipment. The central organisation of the industry is the British Electrical and Allied Manufacturers' Association.

### Heavy Electrical Plant

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, including the United States. In order to meet the growing volume of orders, extensions to capacity have been carried out by the principal manufacturers. Manufacture takes place in many areas, among the most important being Manchester, Rugby, Tyneside, and Stafford. Among the orders on hand are a 275,000 kilowatt (kW) generating set for commissioning in 1962 and one of 550,000 kW in 1963.

In 1959, more than 1.2 million kW of steam turbine plant of 10,000 kW and over was exported, an increase of about two-fifths on the 1957 export total; it was also a record year for output of hydraulic turbines and the total capacity of deliveries exceeded 1.7 million b.h.p. (0.82 million b.h.p. in 1957), almost all of which was for export. The value of exports of electrical machinery in 1959 totalled £68 million, and included £37.3 million worth of generating sets, generators and motors, £18.3 million worth of switchgear, and £11.2 million worth of transformers.

### Radio and Other Electronic Apparatus

Production of electronic equipment is one of the most rapidly expanding of Britain's industries. United Kingdom scientists and inventors have made many basic contributions to electronics—the thermionic valve, the development of radar (a British firm has fitted nearly 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. The volume of the industry's output is estimated to have risen by over 50 per cent between 1954 and 1959. Its range of activities extends from consumer articles, such as television and radio receivers, and sound reproduction equipment, to complex industrial equipment, including machine-tool controls, radio and television transmitters (British companies have equipped television transmission systems throughout the world), air and marine navigation aids, nucleonic control instruments and data-processing machines. There are eighteen manufacturers producing some 600 different types of transistors and semiconductor devices.

It is estimated that about 230,000 people are employed in the electronics industry and that the value of its gross output in 1959 was about £260 million (excluding telecommunications equipment). In that year production included 2.84 million television receivers (half as many again as in 1958) and 1.83 million radio receivers and radiograms.

The value of exports reached the record level of £55 million in 1959 and, in recent years, exports of capital equipment (for example, marine and air navigation aids) have tended to expand faster than consumer products. In the same year, exports of navigational aid equipment were worth £21.5 million, exports of electronic valves and cathode ray tubes over £6 million, and those of sound-reproducing equipment and accessories were valued at £9 million. The largest markets include the United States, Australia, Canada and the Netherlands. Indirect exports in the form of equipment in other products, for example in aircraft, ships and machinery, are also considerable.

### **Insulated Wires and Cables**

This industry is concerned with the manufacture of cables and wires (including submarine cables) for the distribution of electric power, for the telephone and telegraph network and for many other purposes.

In 1959, workers employed in the industry totalled about 62,000. As a result of recent amalgamations, the two largest firms account for about three-fifths of the total output. The value of deliveries of insulated wires and cables totalled £120 million in 1959. The value of exports increased by 88 per cent to over £36 million between 1954 and 1957, falling back to £24.9 million in 1959; in some degree, the fall reflected lower prices. The United States, India and Hong Kong are the largest markets.

### **Domestic Electrical Appliances**

There are some 200 firms, many of them small and serving local markets, in the United Kingdom manufacturing a wide range of electrical appliances for use in the home. The removal of controls on hire-purchase transactions in the autumn of 1958 and reductions in purchase tax in the Budgets of 1958 and 1959 brought domestic sales up to record levels in 1959. In the same year deliveries of domestic washing machines totalled 1,230,000, valued at £51 million, compared with £24 million in 1957; exports were worth £4.9 million. Deliveries of electric irons, nearly one-third for export, numbered 2,484 million; those of electric cookers 474,000; and those of vacuum cleaners about 1,651,000, worth over £21 million. Other important products include electric blankets and pads (£2.6 million) and dry shavers. The value of output of domestic appliances was about £140 million in 1959.

### **VEHICLES**

Of the engineering and allied industries, the vehicles group (comprising motor vehicles, cycles, aircraft and railway vehicles) makes the largest contribution to the



export trade (about £488 million in 1959). In 1959, it employed about 900,000 people, including 420,000 in the manufacture of motor vehicles and cycles, 280,000 in the manufacture and repair of aircraft, and 145,000 in the manufacture and repair of locomotives, railway carriages and wagons. There are also some 300,000 people employed in garages on motor repairs.

### Motor Vehicles

In size and value the vehicles industries are headed by the motor vehicles industry, which comprises the manufacture of cars, commercial vehicles and tractors (see p. 332). The industry at present is located mainly in the Midlands and the London area; it consists of a relatively small number of assembly firms—headed by the 'Big Five' (British Motor Corporation, Ford, Rootes, Standard, and Vauxhall), backed by a large number of specialist body and component manufacturers. It has been estimated that over 50 per cent of the ex-works value of passenger cars consists of components purchased from the latter. The 'Big Five' are responsible for about 90 per cent of the output of complete vehicles of all kinds; the balance of the industry's motor production (other than tractors) consists of heavy commercial vehicles, and sports and other specialist cars.

The industry has expanded very rapidly since 1945, and in 1959 produced the record number of 1,190,000 passenger cars, 353,000 commercial goods vehicles and 17,400 omnibuses, coaches and trolleybuses. In the first half of 1960, output of passenger cars had risen to an annual rate of 1.6 million. Exports of passenger cars in 1959 were the highest so far reached, 569,000 (including chassis); those of commercial goods vehicles at 123,000 were 13,000 below the 1955 peak, but in terms of value were the highest ever recorded. The value of exports of passenger cars totalled £223 million, and that of commercial vehicles £87 million. Exports of parts and accessories (excluding rubber tyres and tubes) were valued at £126 million. The largest market for cars was the United States, which took some 208,000 cars (over one-third of total exports), followed by Canada, Australia and South Africa. The largest European market was Sweden.

Research is carried out at Lindley, Warwickshire, by the Motor Industry Research Association, an autonomous body founded in 1946 and partly financed by the Department of Scientific and Industrial Research, but mainly by the industry itself. Individual firms also have their own research and development facilities.

The industry, having recently completed a series of large-scale investments costing £150 million, embarked in 1960 on a further substantial expansion of capacity, provisionally estimated to cost even more than the previous programme. In addition to developments in existing centres of production, new plants are being established on Merseyside and in Wales and Scotland.

The principal trade association in the industry is the Society of Motor Manufacturers and Traders (SMMT), founded in 1902, which holds a Motor Show annually in London, and a Commercial Motor Exhibition every two years.

### Motor Cycles and Pedal Cycles

In 1959, output of motor cycles, including motorised bicycles (mopeds), three-wheeled motor vehicles, and scooters, totalled 249,000, of which 43,000 (compared with 60,000 in 1955) were for shipment overseas, over one-quarter to the United States. Output of mopeds increased threefold to 79,000 and that of scooters by 10,000 to 29,000, following the introduction of additional models in 1958. The total value of United Kingdom production of complete machines was about £25.6 million, and that

of exports about £5.2 million (about two-fifths to the United States), plus £1.4 million worth of parts and accessories.

Production of pedal cycles is likely to be concentrated mainly in a single group of manufacturers, as a result of an important merger in 1960, and this group accounts for over three-quarters of total production. In addition, there are several smaller companies, some of which specialise in particular types, such as racing cycles. Output in 1959 totalled 2,213,000, of which over half were exported. In the peak year of 1955, nearly 3.6 million were manufactured. The value of exports of pedal cycles, parts and accessories in 1959 amounted to £18 million; the United States, Nigeria, Iran and the Federation of Rhodesia and Nyasaland, were the largest overseas markets.

The British Cycle and Motor Cycle Industries Association Limited holds a biennial exhibition in London, usually in the autumn.

### Aircraft

The development of the aircraft industry in the United Kingdom, as in other countries, has been strongly influenced by defence requirements, and at the peak of war-time activity it employed nearly 2 million people, compared with some 35,000 in 1935. Following the adjustments to peace-time conditions, the industry has undergone a further period of marked expansion, with the numbers employed increasing from 162,000 in 1951 to 280,000 in 1959. (This represents a drop of some 35,000 from the post-war peak.) The numbers are tending to fall as a result of changes in defence policy.

Britain's achievements in developing aviation and the aircraft industry have been notable. The science of aerodynamics was founded by Sir George Cayley in the early nineteenth century; more recently, Sir Frank Whittle developed the gas turbine aircraft engine, and its first applications to scheduled airline service were the turbo-jet *Comet* and the turbo-prop *Viscount*, the latter probably the most successful post-war civil aircraft now in service all over the world, about 425 having been sold by June 1960. The larger *Britannia*, which entered into scheduled service in 1957, was the first gas turbine airliner to be used on North Atlantic services and has also been ordered by several overseas airlines. The *Comet 4*, which went into service in 1958, is being used by several British and foreign airlines. The *Vanguard*, a turbo-prop aircraft with exceptionally low operating costs, entered into service with British European Airways (BEA) in 1960. Other new gas turbine aircraft in production in Britain are the Armstrong Whitworth *Argosy*, the Handley Page *Herald* and the Avro 748. The British Overseas Airways Corporation (BOAC) has ordered the Vickers *VC10* and BEA the Airco *DH121*; both aircraft are expected to enter into service in the early 1960s. Britain is also the largest producer in Europe of rotary wing aircraft, and more than 500 British helicopters are in service in the world. Orders have been placed for the world's first vertical-take-off airliner, the *Rotodyne*, which made its maiden flight in 1957.

As a result of mergers and reorganisation at the end of 1959 and early in the following year, the industry is now dominated by five large groups, two being mainly concerned with airframe manufacture, two with aero-engines and one with helicopters. There are also a few smaller companies outside these groups. Chief centres for the industry are London and the Home Counties, Derby, Coventry, Bristol and the West of England and Scotland. The aircraft industry is also engaged on the development of guided missiles, some of which have been delivered to the Services.

The British aircraft industry makes an important and growing contribution to export earnings. The record 1959 total of £156.1 million brought the total export earnings in the last five years to £600 million; it included £64.5 million for aero-engines

and £84.3 million for aircraft and parts. The largest markets for aircraft were India, Canada, the United States, and Western Germany. Patent and royalty payments from abroad are also important. Licence agreements have been made for fifteen to twenty types of British aero-engines to be built abroad, and a number of foreign aircraft have been designed to use British aero-engines and equipment.

The representative body of the aircraft industry is the Society of British Aircraft Constructors, founded in 1916. Its annual exhibition and flying display at Farnborough is one of the most important events of its kind.

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. This work is done in collaboration with the industry and results are made known to manufacturers, who are in close touch with the ministry's establishments. In addition, the National Physical Laboratory undertakes research on aerodynamics.

### **Railway Vehicles**

Britain was the first country to build railways, and British engineers pioneered railway development in most parts of the world.

Locomotive production in the United Kingdom is derived from two separate sources. British Railways have their own main railway workshops, engaged in the production and repair of locomotives and other rolling stock and in the production of miscellaneous railway components exclusively for their own use; and private firms build locomotives and carriages and wagons of all types for both British Railways and industrial users in Britain and for export markets. The gross value of annual output is about £220 million.

The industry is organised to meet the conditions resulting from the change-over from steam to other forms of traction by most of the world's railways and by 1959 output of steam locomotives had been reduced to a negligible level. British Railways, as part of their modernisation programme, had taken delivery of 420 main line diesels and 85 electric locomotives by the end of 1959, and had on order about 800 and 110 respectively. The building programme is being shared between private firms and British Railways workshops, the latter using engines supplied by electrical equipment manufacturers.

About 70,000 people were employed in 1959 in making locomotives and railway track equipment and about 75,000 in making and repairing railway carriages and wagons. In that year the two industries exported 294 diesel and diesel-electric locomotives, 145 electric locomotives, 230 coaching vehicles and nearly 5,000 wagons. The total value of the industry's exports was £34 million, a decline of £12 million from the previous year. South Africa was the most important market by a large margin, followed by India and Pakistan.

### **MISCELLANEOUS METAL PRODUCTS**

The group of industries falling within this classification comprises some 9,500 firms, according to the 1954 Census of Production, and in 1958, they had a net output valued at £434 million. The group employs about 530,000 persons. It is composed of some firms making intermediate products, such as wire, nuts, bolts and screws, drop forgings, pressings, metal window frames, cans and metal bottles, and others manufacturing a great variety of finished products ranging from hand tools, cutlery, metal hollow-ware



of all kinds and metal furniture to pins and needles. Its annual capital investment is about £30 million.

Notes on some of these industries are given below.

### **Cutlery and Flatware**

The production of cutlery and flatware is centred in the city of Sheffield. The industry has been built up on the high degree of skill of its craftsmen; and while modern machinery has largely replaced hand forging, and mass production methods are used today by some firms in producing the cheaper range of products, the highest quality wares are still produced by skilled craftsmen. Although in recent years there has been some increase in the size of the production units, they remain mainly small and, of some 400 establishments manufacturing cutlery and flatware, over 200 still employ fewer than ten persons.

The annual output of the cutlery and flatware industry is now valued at nearly £12 million, of which nearly £4 million represents exports, mainly to Australia, the United States and South Africa.

### **Domestic Hollow-ware**

This industry, with some 250 establishments, is mainly located in the Midlands, Lancashire, Yorkshire, South Wales and London. About 60,000 people are employed. It produces a wide range of domestic utensils, such as saucepans, buckets, and dust-bins, mainly from wrought steel. There is increasing competition from plastic hollow-ware.

The value of annual production approaches £20 million, of which nearly one-fifth represents exports. The principal markets are the United States and Commonwealth countries, especially West Africa. Aluminium manufacturers comprise the largest single group, both in the value of total production and in exports.

### **Hand Tools**

The manufacture of hand tools is one of the oldest industries of the United Kingdom. Over 400 different kinds of hand tools—in many thousands of sizes and patterns—are made in British factories, with Sheffield, Birmingham and other towns in the Midlands as the most important centres. The exact number of manufacturers is not known, but there are believed to be about 400 important producers. They include large manufacturing firms, some of which have more than 1,000 employees, including research and design staffs. The 'do-it-yourself' movement has given rise to a keen demand for tools for use in the home and for woodworking.

In 1959, hand tools to the value of £16.5 million were exported. The five largest markets are Australia, South Africa, Canada, the United States and India.

## **CHEMICALS**

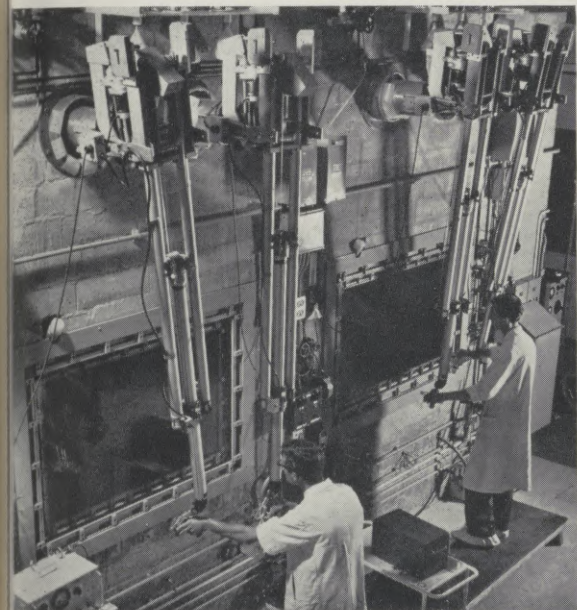
It is difficult to define the chemical industry since, with the increasing dependence of industry generally on synthetic raw materials, its scope is continually widening. But on the broadest definition the industry includes the manufacture of such products as acids, alkalis, alcohols, industrial gases, explosives, fertilisers, dyestuffs, soaps and detergents, petroleum chemicals, plastics materials, paints and pharmaceuticals. Manufacturing these and other products, the chemical and allied trades (other than mineral oil refining) employ some 450,000 people and contribute over 8 per cent of the total net output of all manufacturing industry. Exports of chemicals are also substantial and increased in value by nearly one-half, and in volume by more than





## SOME EXPORT PRODUCTS

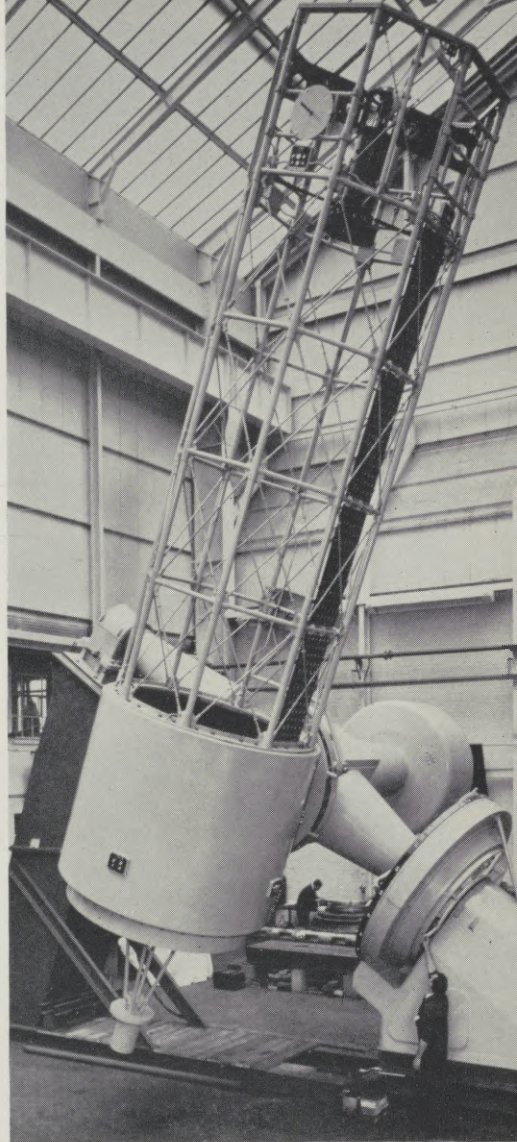
The making of pianos, of which Britain is the largest exporter, calls for special skill and experience.



Handling radioisotopes at the Radiochemical Centre, Amersham: Britain is the world's largest exporter.



A stage in the production of BCG anti-tuberculosis vaccine: drugs worth £40 million were exported in 1959.



This 74-inch reflecting telescope was sent to Japan in 1960.



Pedigree poodles for the United States: 4,500 dogs were sold overseas in 1959.





The London Metal Exchange in session—dealing in tin.



A portrait by the English painter Thomas Gainsborough (1727–88) sold at Sotheby's, London, March 1960 for the world record price of £130,000. It has since been bought by the National Gallery



half between 1954 and 1959, amounting in 1959 to £293 million, or 9 per cent of total United Kingdom exports. Capital investment in the industry (excluding mineral oil refining) totalled nearly £900 million in the ten-year period 1948-57, and averaged nearly £150 million a year in 1958 and 1959.

The British chemical industry has expanded considerably during the present century. More particularly, recent years have seen a rapid growth which has brought the industry's production up to about three times its pre-war level. The volume of production has doubled since 1948, and the number of employees during that period rose by about one-fifth. Between 1954 and 1959 output went up by over one-quarter. This post-war expansion has been most marked in two fields (apart from mineral oil refining)—production of plastics materials generally, and the large-scale manufacture of a wide range of organic chemicals from petroleum.

### **Heavy Chemicals and Dyestuffs**

The heavy chemicals sector covers a wide range of acids, alkalis, alcohols, industrial gases and other basic chemical substances, many of which are fundamental to other branches of the chemical industry as well as to other industries. Output in 1959 of sulphuric acid, one of the most important products, at 2.4 million tons, was about two and a half times the immediate pre-war figure.

Since the war, there has also been a greatly expanded production of raw materials for the manufacture of synthetic detergents, while trichlorethylene has been in big demand in the engineering trades for mechanical degreasing plants. Exports of chemical elements and compounds, which in 1954 were valued at £50.6 million, had risen to £70.3 million in 1959; about half were inorganic products and included an increasingly valuable trade in carbon black. The largest market was India, followed by Australia, the United States, the Netherlands, Italy, Western Germany and Canada.

The dyestuffs industry also continues to add to the already comprehensive range of its products, many of them developed from British discoveries in the nineteenth and twentieth centuries. Exports of synthetic organic dyestuffs and pigments in 1959 were valued at £12.8 million; production in the same year totalled 34,000 tons.

### **Petroleum Chemicals**

The petroleum chemicals industry in Britain, based on the use of petroleum products and refinery gases, is the largest in Europe. It provides raw materials for the plastics, synthetic detergents, solvents, synthetic rubber and other branches of the chemicals and associated industries. The principal plants are adjacent to the oil refineries at Fawley (on Southampton Water), Stanlow (in Cheshire) and Grangemouth (in Scotland), and at Wilton (in Yorkshire). A new centre at Severnside, near Bristol, is being constructed in stages, and will be linked to Fawley by pipeline. The value of investments in plant and equipment completed or in hand in the post-war period to the end of 1962 has been estimated at about £200 million, nearly £150 million falling in the period since 1955. The oil companies have a large stake in the industry. Production in 1959 totalled nearly 380,000 tons (carbon content), over double the 1955 quantity and an increase of 27 per cent over 1958. Plants designed to add substantially to supplies of basic materials are being brought into production.

### **Plastics**

The first plastic, celluloid, originally known as 'Parkesine', was produced in Britain in 1865 by Alexander Parkes. Modern plastics originating in Britain include 'Perspex' and polyethylene. Since 1939, there has been a very large increase in the total production

of plastics materials. Expansion during the last few years has been concentrated mainly on thermoplastic materials such as polyethylene (used in cable coverings, packaging—notably for foodstuffs—and domestic mouldings), polystyrene (a cheap non-inflammable material used for toys, light mouldings and, more recently, for durable consumer goods), and polyvinyl chloride (known as PVC, and made into industrial conveyor belting as well as a variety of other consumer goods such as raincoats and curtains). Britain was the first country to manufacture plastic-coated steel, in 1957.

In the period 1948–59, net sales of plastics materials have multiplied more than fourfold to a total of 501,000 tons in 1959; compared with 1954, net sales have increased by over 50 per cent. Thermoplastic materials, which in 1959 accounted for 308,000 tons, have multiplied to nearly two and a half times the 1954 level. Exports have also grown rapidly, and (including waste and scrap) 157,000 tons, valued at £40 million, were exported in 1959; over two-fifths of exports go to European countries. The industry is undertaking large extensions to its productive capacity and is also spending considerable sums on development of improved materials. Commercial production of polypropylene began in Britain in 1959 and capacity is being expanded considerably.

### **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 in recent years new large-scale manufacturing facilities. In addition, there are about seventy 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. Output of nitrogenous fertilisers (in terms of nitrogen content) in 1959 totalled 350,000 tons, three times the pre-war volume, and 371,000 tons of phosphatic fertilisers were produced (in terms of phosphate content), more than twice the pre-war figure. Sales in the form of compound fertilisers in granulated form are increasing; production of these was 2.6 million tons (gross weight) in 1959.

The value of exports of manufactured fertilisers, almost all in the form of ammonium sulphate, totalled £3.4 million in 1959, the principal markets being Ceylon and other Commonwealth countries.

### **Pesticides and Weedkillers**

Important British discoveries in recent years have led to major developments in the production of selective weedkillers such as methyl-chloro-phenoxy-acetic acid (MCPA), and of insecticides based on benzenehexachloride (BHC). Overseas markets take the major proportion of United Kingdom production of these and other well-known pesticides, such as systemic insecticides; exports reached a value of some £7.4 million in 1959. New products for plant protection, notably new forms of synthetic hormones, are being developed.

### **Pharmaceuticals and Toilet Preparations**

Many of the pharmaceutical products sold today have been introduced in the past twenty years. These products include sulphonamides, antibiotics (e.g., penicillin, whose properties were first discovered by Sir Alexander Fleming in 1928), hormones, anti-malarial drugs (e.g., 'Paludrine'), liver extracts, anti-histamines and anti-tubercular drugs. Recent British discoveries include the isolation of the basic molecule of penicillin,

and a new drug for the treatment of leprosy. Some £5 million a year is spent on research, and the value of annual output of pharmaceutical preparations is some £150 million. About half of the larger drug manufacturing firms in Britain are subsidiaries of overseas concerns. Total exports of drugs and medicinal preparations and druggists' wares in 1959 amounted to a value of £40 million, of which £8 million worth consisted of antibiotics.

The toilet preparations, soap, detergents and polishes industries have shown a steady expansion since the war, and the value of exports was £26.3 million in 1959, about one-quarter being detergents and a further quarter, soap. Although many firms are subsidiaries of American and French companies, there are several wholly British firms whose products have world-wide sales.

### Paints

About 46,000 people are employed in the paint industry. 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 dioxide pigment. Production has risen steadily—from about 69 million gallons in 1953 to 90 million in 1959. The value of direct exports of pigments and paints rose by nearly a half between 1954 and 1959 to a total of £26.4 million, of which 9 per cent represented shipments to Canada, the largest single market. About one-third of the exports 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 very considerable.

## TEXTILES AND CLOTHING

The value of exports in the textiles and clothing group as a whole, including manufactures of wool, cotton, linen, jute, silk, rayon and other man-made fibres, lace, hosiery, woven apparel and carpets, amounted in 1959 to about £295 million or about 10 per cent of total United Kingdom exports. Nearly 1½ million people were employed in these industries at the end of 1959, including about 250,000 in the spinning and weaving of cotton and man-made fibres, 205,000 in the wool textile industry, 85,000 in textile finishing and associated processes, 120,000 in hosiery and knitted goods, and about 470,000 in clothing (excluding footwear).

### 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, notably India, to set up their own textile industry cut progressively into British markets. During the second world war, numbers of mills were closed and, while many were brought back into production in the early post-war years, the industry has recently again been declining in size, although it remains one of the largest consumer goods industries. The labour force has dropped to under 50 per cent of the 1937 level, and at the end of 1959, there were about 100,000 persons employed in the spinning and doubling section of the industry, and 93,000 in weaving. Two-thirds of the workers in the industry are women.

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. The Cotton Exchange, which deals in raw cotton, is situated in Liverpool.

Legislation to assist the reorganisation of the industry was introduced in 1959. Exchequer funds are paying for two-thirds of the cost of removing surplus capacity, and will also provide a grant of about one-quarter towards the costs of modernisation and re-equipment. The estimated cost to the Government is about £30 million, spread over five years. The reorganisation schemes, which have been introduced for the spinning, doubling and weaving sections of the industry, are administered by the Cotton Board, a statutory body with the constitution and powers of a development council. A similar scheme for the finishing sections of the industry came into operation in August 1960. The scrapping of machinery under these schemes has left the industry, before re-equipment, with about  $8\frac{3}{4}$  million ring equivalent spinning spindles,  $1\frac{1}{2}$  million doubling spindles and 160,000 looms.

Production rose steadily from 1945 until the end of 1951, since when the level of activity has been subject to marked fluctuations. Technical advances, notably the introduction of new finishes for cotton goods with drip-dry, crease-resisting and other properties, have helped to widen the industry's markets, but the rising scale of duty-free imports of grey cloth (352 million square yards in 1959) has caused concern. Agreements have been negotiated with certain other Commonwealth countries to fix temporary ceilings for such imports. Production of cotton, man-made fibres and mixture cloth in the industry in 1959 was about 50 per cent of the 1937 level, and consumption of raw cotton totalled some 284,000 tons, against about 639,000 tons in 1937. The United States in 1959 supplied about one-quarter of Britain's imports of raw cotton, and the second largest supplier was the Sudan, which provides the bulk of the long-staple varieties.

Exports have suffered as a result of the highly competitive state of the world market and the tendency for industries, protected by restrictions, to be established in former markets. In 1959, the value of exports of yarn, thread and woven fabrics amounted to £63 million. About 347 million square yards of cotton fabrics valued at £45.4 million were sent overseas, two-thirds to Commonwealth countries, the largest markets being Australia, South Africa and New Zealand.

The British Cotton Industry Research Association (Shirley Institute), founded in 1919, undertakes scientific and technical research for the industry.

## Wool

The United Kingdom wool textile industry, the largest in the world, is the most ancient of Britain's staple industries and has been an important source of wealth 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. The woollen side of the industry is normally organised on a vertical basis, with each firm undertaking the full process of manufacture from raw material to finished product, but for a variety of reasons the worsted industry is organised horizontally—combing, spinning and weaving being done by separate firms. In recent years, however, there has been a tendency in the worsted industry towards the formation of holding companies controlling a number of subsidiary combing, spinning and weaving firms, all the worsted processes being carried out within the one organisation. Small firms, often family concerns, employing fewer than 300 workers, predominate in the industry. Output reached a post-war peak at the end of 1950, but this was followed by the recession of 1951-52, which

reached the lowest point in the middle of 1952. Production subsequently recovered, and output in some sections in 1957 and again in 1959, exceeded the level of 1950, although in 1958 the industry experienced a sharp fall in orders. Persons employed in the industry in December 1959 numbered 205,000.

The United Kingdom's annual consumption of virgin wool is about 500 million lb. (clean weight), equivalent to about one-fifth of total world consumption (excluding Eastern Europe and China), and about 600 million lb. if re-used and re-processed wools are included. Blending of wool with man-made fibres has been expanding steadily and accounted for some 10 per cent of total consumption of all fibres used in the industry in 1959.

The wool industry continues to be one of Britain's leading export industries, with about one-quarter of its total output shipped abroad, despite the obstacles in the form of widespread import restrictions which it has to face. The total value of exports of woollen and worsted yarns and woven fabrics in 1959 was about £83 million, of which £23 million represented exports to the United States and Canada and £13 million to Western Germany; export of wool tops was to the value of £40 million. In addition, there were considerable exports of wool in other forms, including carpets and clothing.

Research is carried on mainly by the Wool Industries Research Association, which is financed partly by a statutory levy on the industry and partly by a grant from the Department of Scientific and Industrial Research.

The National Wool Textile Export Corporation, which is financed by a statutory levy on the industry, is responsible for assistance to exporters and for developing overseas markets.

### Man-made Fibres

Exports of all types of man-made fibres in 1959 totalled £27.1 million (slightly less than in 1958), of which £16 million was accounted for by yarns and over £10.5 million by fabrics. Australia, New Zealand, and South Africa were the largest markets.

*Rayon* is produced from cellulose, in the form of either woodpulp or cotton linters. Its early development took place to a large extent in Britain. Production is spread throughout the Midlands and Lancashire, with outposts in other areas. There are seven companies engaged in the production of rayon, four producing only viscose, two producing only acetate, and one both viscose and acetate. One company accounts for over four-fifths of total output, and also has extensive manufacturing interests throughout the world. Annual average production has in recent years been of the order of 420 million pounds (lb.), of which about 240 million lb. was in the form of staple fibre—about ten times the pre-war average. The central research station of the industry is that of the British Rayon Research Association at Wythenshawe, Manchester.

*Nylon* is produced from a combination of chemical substances, most of which are obtained from indigenous raw materials. Production of nylon yarn started in Britain in 1941 for military uses, such as parachutes. Large-scale production began at Pontypool, in South Wales, in 1948. Capacity at this plant has been greatly increased, and other factories came into operation at Doncaster, in Yorkshire, in 1955, and Brockworth, near Gloucester, in 1960. Nylon is used extensively for clothing fabrics and stockings and has wide industrial uses, including the manufacture of tyre cords, fishing nets, fire hose, ropes and conveyor belts. Annual productive capacity is expected to reach 60 million lb. by 1961.

'*Terylene*' polyester fibre, a product of research in the laboratories of the Calico Printers' Association, Manchester, is made on a large scale at Wilton, Yorkshire,

by Imperial Chemical Industries Ltd. Annual productive capacity was increased to 30 million pounds weight in 1959, and a new plant under construction, also at Wilton, will raise this to 50 million lb. A plant for the manufacture of 'Terylene' has been set up in Canada, and the British patent holders have licensed its manufacture in other countries, including France, the German Federal Republic, Italy, the Netherlands, and Japan.

'*Fibrolane*' is a British-made protein fibre, with wool-like properties, derived from casein. Other man-made fibres at present produced in Britain include '*Courlene*' (a polythene fibre), and '*Alginate*' (derived from seaweed).

'*Courtelle*', an acrylic fibre, has been manufactured on a commercial scale at Grimsby, in Lincolnshire, since early in 1959. Annual productive capacity is being doubled to 22 million lb. by 1961. A plant to manufacture another acrylic fibre, '*Acrilan*', started operating at Coleraine, in Northern Ireland, early in 1959.

Since the advent of rayon in its various forms and, more recently, of the new man-made fibres, British textile manufacturers have been developing a number of ways of blending these with natural fibres and with each other. By this means they can produce economically fabrics and garments with attractive and useful new combinations of texture, colour and finish, and with moisture-absorbent, hard-wearing, drip-dry and crease-resisting properties.

### **Hosiery and Knitwear**

The hosiery and knitwear industry employs about 120,000 workers, of whom two-thirds are women. About 80 per cent of the 1,100 firms in the industry employ fewer than 50 workers, and only three manufacturers have more than 4,000 employees. The industry is widely distributed throughout Great Britain, with Scotland and the east Midlands as the two most important centres. Annual consumption of yarns totals about 80,000 tons, nearly half of which are woollen yarns, and a growing proportion are of fully synthetic fibres. Exports of stockings and socks in 1959 were worth £3.5 million, Canada being the largest market; while those of knitted underwear and outerwear totalled £7.4 million, sales to the largest buyer, the United States, totalling over £2 million. Exports of knitted fabrics amounted to £2.8 million, mainly to Commonwealth countries.

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 already 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 were valued at £16 million in 1959,



including £8.6 million worth of linen fabrics, £2 million of flax linen yarns and £955,200 of damask table linen. 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, but principally for packaging material. Annual production of jute tissues averages about 80,000 tons. Some 18,000 workers are employed. The value of exports in 1959 totalled about £4 million (including second-hand sacks and bags).

Research facilities are concentrated at the laboratories of the British Jute Trade Research Association. About £11.5 million has been spent on a post-war modernisation programme, and productivity in the industry is estimated to have risen by 40 per cent in the past ten years.

*Silk* exports were valued at about £0.7 million in 1959. Raw silk is supplied mainly from Japan, China and Italy. Production has been expanding, and deliveries of silk and silk mixture woven piece-goods in 1959 totalled 3.2 million square yards, an increase of one-quarter over the previous year. About 750,000 square yards were exported in 1959.

## Clothing

The clothing industry in Britain, the largest in Europe, is one of the most important employers of labour with about 450,000 workers, three-quarters of whom are women and girls. It had a gross annual output valued at over £500 million (including hats and other millinery) in 1958. 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 the industrial trading estates.

Both the textile trades and the ready-to-wear clothes industries are engaged in promoting British fashions. The fashion industry, principally through the Apparel and Fashion Industry's Association and the Fashion House Group of London Ltd., and the textile trades, through the Textile and London Fashion Organisation, arrange fashion shows. In the *haute couture* branch of the trade, models are shown by the Incorporated Society of London Fashion Designers.

## Carpets

There are some 70 manufacturers in the United Kingdom of the traditional Axminster and Wilton carpets, ranging in size from enterprises with several thousand employees to very small firms with only a few workers. In addition, there is also 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. Over 30,000 workers are employed, and the principal manufacturing centres include Kidderminster (in Worcestershire), Halifax and Dewsbury (in the West Riding of Yorkshire), Durham, 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, in fact, more than two-thirds of the traditional carpets produced are of a pure woollen or worsted pile.

According to the Federation of British Carpet Manufacturers, 1959 was the most successful year in the history of the industry. Sales (at ex-factory values) totalled 71.4 million square yards, valued at £89.9 million, compared with £85.6 million in

1958. Exports, however, have been faced with import restrictions in overseas markets, and the 1959 total at a value of £6.9 million was the lowest for several years.

### FOOD, DRINK AND TOBACCO

The industries coming within the food, drink and tobacco group employ more than 900,000 people, and the annual value of their exports averages about £200 million.

Notes on some of these industries are given below.

#### **Bread and Flour Confectionery and Biscuits**

The average weekly household consumption of bread per head of population in Great Britain in 1959 was about 3 lb., about  $\frac{1}{2}$  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 an uninterrupted 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; four firms have a dominant position. In the smaller bakeries, numbering about 12,000, production of cake and other flour confectionery is usually allied to bread production. Some 186,000 people are employed in the bread and flour confectionery industry.

Production of biscuits, of which there are about 220 manufacturers with some 55,000 employees, is estimated to be about 75 per cent higher than in the immediate pre-war period. Annual output has been about 520,000 tons in recent years. Weekly consumption of biscuits per head in Britain was about  $5\frac{1}{2}$  oz. in 1959. British biscuits have gained a world-wide reputation, and despite the problem of import restrictions in several overseas markets, exports in 1959 were valued at £5.8 million.

#### **Cocoa, Chocolate and Sugar Confectionery**

The chocolate and sugar confectionery industry, which employs some 105,000 persons, is composed of a small number of very large manufacturers and many hundreds of medium-sized and small manufacturers. The industry's products are highly competitive and highly advertised. Over 90 per cent of the production of chocolate and sugar confectionery is in the hands of about 100 firms, while the more specialised products—cocoa powder, cocoa butter and chocolate covering—are manufactured by about 50 firms.

The main ingredients used by the industry are sugar, cocoa beans, glucose, milk, nuts and fats. Production of chocolate and sugar confectionery for home and export sale totalled about 620,000 tons in 1959, the lowest total since 1952. There are virtually no restrictions on imports of chocolate and confectionery, but these totalled less than 7,000 tons in 1959. Consumption of chocolate and sugar confectionery in the United Kingdom is far higher than in any other country, being equivalent to about  $7\frac{1}{2}$  oz. per head per week in 1959, compared with 7 oz. per head before the war. In 1959, the value of exports of chocolate, sugar confectionery and cocoa products totalled £17.7 million, compared with a record level of over £19 million in 1955. About three-fifths of exports consist of cocoa products and chocolate, and about one-third goes to dollar markets. Manufacturers' total annual turnover is well over £200 million.

#### **Jams and Marmalades**

The jams and marmalades industry in the United Kingdom is highly competitive, with the three largest manufacturers accounting for some two-thirds of the total output. Changes in the pattern of consumer expenditure on food in the past ten years have led to a gradual fall in production—from 329,000 tons in 1949 to 206,000 tons in

1959. The value of output in 1959 was about £30 million. Strawberry, raspberry and blackcurrant jams have the largest sales. There is a sizable export trade in high-quality products, especially marmalade, and £1.6 million worth was exported in 1959.

### **Canned Foods and Quick-Frozen Foods**

The British Navy was using canned foods as long ago as 1813, but it was not until the present century that a considerable industry developed. Rapid expansion has taken place since 1935, and the annual sales of the industry are now believed to be worth some £200 million.

By far the largest product of the canning industry is vegetables, of which 563,000 tons were produced in 1959; over one-third is processed peas, while output of beans in tomato sauce is almost as large. About 100,000 tons of fruit are canned annually. Plums are the most important home-produced fruit canned, but there is also a large production of fruit salad from imported fruit. Canned soup production has increased by over three-quarters since 1953, totalling 161,000 tons in 1959, worth about £25 million, although it is meeting increased competition from packaged soups. Canned meat production has also risen sharply, the 1959 total of 50,000 tons being double that of 1954. About 75,000 workers are employed in preserving fruit and vegetables. Exports of canned vegetables in 1959 reached a value of £1.4 million. Basic research is undertaken by the British Food Manufacturing Industries Research Association, and the Fruit and Vegetable Canning and Quick Freezing Research Association.

The quick-freezing of foods has been expanding rapidly in Britain, particularly since 1954, and about 380 million packs were sold in 1959. The most important products are white fish—some 42,000 tons were quick-frozen in 1959—and vegetables, about two-thirds being peas. There are about 600 varieties of quick-frozen foods available, including fruit, poultry, meat and, to an increasing extent, ready-prepared foods.

### **Whisky**

Scotch whisky, which was first distilled at least as long ago as the fifteenth century, enjoys world-wide popularity. Whiskies are blends of twenty or more different kinds, some made from malted barley, some from other grains. Whisky requires several years to mature, and the 57 million proof gallons (a record) produced in 1959 will not be on sale for some years. Stocks of whisky amount to about 265 million proof gallons, of which over one-third has been in stock for more than three years. Whisky is one of the United Kingdom's largest dollar earners; more than half the annual exports (nearly three-quarters of the annual sales are to overseas buyers), which in 1959 attained the highest level so far recorded of £61.9 million, are shipped to the United States. Other valuable markets are Canada and other Commonwealth countries, Venezuela and Western Germany.

### **Gin**

Production of gin in the United Kingdom has risen steadily since 1952, and in 1959 amounted to about 7 million proof gallons (an increase of nearly half since 1952), over one-third of which was exported. The main distilleries are situated in London, and one group of companies accounts for about half the total output. Although most of the larger manufacturers also have distilleries overseas, exports have expanded, and in 1959 were worth £4.2 million, the United States being by far the largest market.

### **Brewing and Malting**

*Brewing.* There are some 300 separate breweries located throughout the United Kingdom, of which the main centres are London, south Lancashire, Burton-on-



Trent (Staffordshire), Birmingham, and Edinburgh. In the main, brewers distribute their beer for consumption within 40 miles of the brewery, but some of the largest firms send their beer all over the country. In recent years there has been a strong tendency towards the creation of larger brewery units. Much of the beer is consumed in draught, but in recent years the demand for bottled beer has increased and is now probably about two-fifths of total consumption compared with one-quarter before the war. Bottling is carried out by both brewers and independent bottling establishments. The industry's raw materials are malt (chiefly made from home-grown barley), sugar and hops. Consumption of beer has declined appreciably from the exceptional levels of the immediate post-war years; the drop was, however, largely halted in 1951, and demand in 1959 was appreciably higher than for some years. Canned beer is becoming increasingly popular. Substantial capital investment, estimated at about £8 million a year, is being undertaken, together with a similar sum for the installation of bottling equipment. The excise duty on beer accounts for about one-third of the retail price. In the year ended 31st March, 1960, duty of £219 million was paid on over 26 million bulk barrels. Since the war the industry has maintained a sizable export trade, which in 1959 was valued at £2.6 million.

*Malting.* There are several hundred malting units in the United Kingdom. Some of these are operated by brewers who make all or part of their own malt. The remainder are operated by maltsters whose product is sold principally to brewers at home and abroad, but some malt is supplied to distillers and vinegar brewers, and also to the manufacturers of malt extract for use in the baking, confectionery and textile industries. The popularity of British malt has been established with brewers throughout the world, and in 1959 malt exports were valued at £1.7 million. These malting units are mainly situated in the barley-growing areas which lie east of a line drawn from Edinburgh, through Burton-on-Trent (Staffordshire), to Lyme Regis (Dorset).

Malting usually takes place in the cooler months following the harvest, but with the aid of air-conditioning plant and other modern developments some units can operate throughout the year. Grain is the only raw material used by the industry—chiefly home-grown barley especially grown for the purpose.

### **Soft Drinks**

The rapid expansion of the soft drinks industry in the years since the second world war, and especially since 1954, reflects both changes in public taste and rising standards of living. The industry's output in 1959 was estimated at 421 million gallons in terms of ready-to-drink liquid, about equally divided between concentrated and unconcentrated drinks. The hot dry summer of 1959 resulted in an increase of about one-quarter in output over 1958, and about 300 million gallons over the 1939 total.

The industry may be divided into three broad groups: several hundred small manufacturers; about 300 larger firms supplying a regional market only; and some 20 firms producing widely advertised brands which are marketed on a national scale. There is also some degree of specialisation by firms in the production of the various types—e.g., 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, which employs some 48,000 people, manufactures almost all the cigarettes and other tobacco goods sold in the country. In 1959, personal expenditure on these goods amounted to £1,080 million (of which over two-thirds was tax revenue) and, in addition, exports worth £19 million (some 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, compared with 80 per cent some eight years ago.

The tobacco industry uses over 300 million lb. annually of raw tobacco of all types, all of which is imported. The main sources are the United States, Rhodesia, India and Canada, in that order. Most of this tobacco goes to make cigarettes (nearly seven-eighths) and pipe and cigarette tobaccos. Production of cigarettes for the home market in 1959 is estimated at 106,600 million, about 12 per cent of sales being in the form of filter-tipped brands, with the demand for 'king-size' (i.e. larger) types rising markedly. Cigars account for less than  $\frac{1}{2}$  per cent of tobacco consumption, but sales doubled between 1954 and 1959 to about 300 million. Although the great majority are made in Britain, many of the best grades are imported, mainly from Cuba, Jamaica and the Netherlands.

### MISCELLANEOUS INDUSTRIES

This broad heading covers a very wide variety of industries and groups of industries, from building materials to toys, employing over 1.7 million people at the end of 1959.

Notes on some of these industries are given below.

#### Brickmaking

Introduced by the Romans, brickmaking is one of Britain's oldest industries, and something like 2,000 different varieties of building bricks are produced in the United Kingdom today. These are made in some 800 works which range from small seasonal yards using traditional hand methods to highly mechanised plants. More than two-fifths of production consists of the Fletton type of brick, demand for which is steadily increasing and which is made mainly in the Peterborough and Bedfordshire areas. The chief producer is the largest brick manufacturing company in the world. The high level of activity in the building industry in 1959 brought production up to nearly 7,000 million bricks, or 10 per cent more than in 1958.

#### Refractories

Refractories are essential in the operation of blast furnaces, steel furnaces and other metallic furnaces and are used extensively in many other industries, including non-ferrous metals, ceramics, glassware and chemicals, in nuclear energy and jet propulsion. The chief raw materials required for their manufacture are indigenous except for magnesite (which is obtained partly from overseas and partly from production of sea-water magnesia) and chrome ore.

The chief centres of the industry are in the Midlands, west Yorkshire, north-east England, Scotland, and Wales. Production has averaged about 2 million tons a year since 1948, mainly for home use. Exports of refractory construction materials in 1959 were valued at about £3.6 million, compared with £2.8 million in 1955.

#### 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 at least 100 years.

The Stoke-on-Trent area in Staffordshire, comprising the six towns of Stoke, Burslem, Tunstall, Hanley, Fenton and Longton, is the centre of the industry and 95 per cent of production capacity is concentrated in that area. Other important factories are at Worcester, Derby, Bristol and Poole. The industry employs about 35,000 workers, of whom more than half are engaged in the production of table and ornamental ware.

Of the £32 million worth of pottery produced in 1959, over £14 million worth was for export. About three-quarters of bone china exports go to Canada and the United States, and the largest markets for decorated earthenware are Canada, Australia and the United States.

The modern industry benefits from a tradition of good design and craftsmanship (made world-famous by a long line of great British potters) which, with the excellent technical qualities of its products, is the basis of the large overseas and domestic demand. 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 has a large and efficient glass industry, the third largest in the world, with a wide diversity of products, employing some 77,000 workers. The section of the industry devoted to the manufacture of plate and sheet glass in their various forms is organised for quantity production, and the development of modern methods has enabled the industry to cater for an increasing range of requirements. 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. A British firm has developed, at a cost of £4 million, a revolutionary glass-making process for producing 'float glass'.

Rapid technical progress has led to the large-scale production of tubular glass, optical glass and also glass insulators for use in electricity transmission. Glass fibres, used for insulating purposes and as reinforcement for plastics, are thought to offer great scope for further development. They are being used in the manufacture of a wide range of products including travel goods, boats and perambulators. Bottles and jars, table ware and lamp bulbs are now made by completely automatic machinery and the advance of the industry is shown by the increase in exports of all glassware (including plate and sheet glass) from a negligible level in 1938 to a value of £18.5 million in 1959; this total included £11 million worth of plate and sheet glass, of which one-quarter was exported to North America. Exports of vacuum flasks and illuminating glassware accounted for a further £1.3 million.

A traditional product is hand-made lead-crystal glassware of very high quality; a high proportion of output is exported, mostly to Australia, South Africa, New Zealand, 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.

### 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 employs about 16,000 people, 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 12.6 million tons in 1959. One group of companies is responsible for about two-thirds of total output. In 1959, 1.1 million tons (valued at £6.5 million) were exported, half to West Africa, compared with a peak total of 2.06 million tons in 1952; the fall reflects the expansion of production capacity in overseas countries.

### **Jewellery, Gold and Silver Ware**

The making of jewellery, gold and silver ware is an industry in which British craftsmen are heirs to a great tradition. About 30,000 are employed. The quality of the metal in gold and silver wares made or sold in the United Kingdom is guaranteed by a 'hall-mark'. The law requires that gold and silver plate shall not be sold until it has been hall-marked at one of the six Assay Offices situated in London, Birmingham, Chester, Sheffield, Edinburgh, and Glasgow. The Birmingham office, located in the main centre of the jewellery industry, probably hall-marks more gold and silver than the rest together. A departmental committee has recommended, in a report published in March 1959, that the number of assay offices should be reduced to four, that hall-marks should also be applied to platinum, and that statutory regulations should be strengthened.

The importance of maintaining definite standards of fineness for wares of gold and silver has always been recognised, and the Goldsmiths' Company in London has carried out the assay and hall-marking of such wares since 1327 when Edward III gave the company its first charter.

### **Toys**

The toy industry in Britain, the largest in Europe, has expanded greatly in the last ten years. There are over 300 manufacturers, most firms being small; the dozen largest are responsible for half the output which, in 1959, amounted in value to just over £36 million. Exports in that year were valued at about £8 million, compared with £0.5 million in 1938; Australia, Canada and the United States are the leading markets. The industry estimates that annual expenditure in the United Kingdom on toys averages £5 per child. Current trends are towards increased production of small-scale precision models of equipment and vehicles and a greater use of plastics materials, but demand for traditional lines, such as toy soldiers, train sets and dolls, remains unaffected.

### **Leather**

Leather tanning is one of Britain's oldest industries. 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 to car upholstery leather, high quality leather for footwear and for leather goods, and also gloving and clothing leather.

At the end of 1959, about 31,000 persons were employed in the leather tanning and dressing and associated industries, and 24,000 in the leather goods industries. The United Kingdom is the world's leading leather exporter, with exports valued

in 1959 at £18.9 million, of which £3.9 million worth went to the United States, £2.3 million to Canada, £2.1 million to Western Germany and £1.4 million to Italy. Research into tanning processes and the improvement of the quality of finished leather is undertaken by the British Leather Manufacturers' Research Association, the foremost research association of this type.

### **Leather Footwear**

The British footwear industry is among the most important in the world, and factories are located throughout the United Kingdom. Some areas concentrate on production of particular types, e.g., the Rossendale Valley region of Lancashire for slippers, Bristol for heavy industrial footwear for miners and agricultural workers, Northampton for men's and youths' footwear, and Leicester and Norwich for women's and girls' shoes. There are about 430 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.

At the end of 1959, some 116,000 persons were employed in the manufacture of footwear (excluding rubber footwear); in that year, output totalled 147 million pairs, of which 125 million pairs represented boots and shoes made mainly of leather. The United Kingdom is the world's second largest exporter of leather footwear, and in 1959, 7.5 million pairs, valued at over £10.5 million, were exported. The United States took over one-fifth of these exports and Canada over one-tenth.

### **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.

About two-thirds of the many different materials, totalling some 3.8 million tons a year, used by the industry come from abroad. The balance consists mainly of waste paper recovered from domestic sources.

Total production in 1959 of all types of paper and board (including newsprint) amounted to 3.66 million tons—the highest ever reached—compared with a pre-war figure of 2 million tons. Of this, newsprint accounted for 669,000 tons, against 800,000 tons pre-war; since 1953, output of board has risen by one-third, mainly as a result of its growing use as packaging material. Exports in 1959 amounted to 198,000 tons, valued at £25.3 million, including 81,000 tons of newsprint, valued at £4.9 million, and £5.8 million worth of other printing paper. The bulk of the export trade is to sterling area countries, mainly Australia, New Zealand, South Africa, the Irish Republic, and India.

The industry comprises some 200 mills producing almost every type of paper and board. There were over 90,000 employees at the end of 1959 and the gross value of output exceeded £300 million. There are also many firms engaged in the conversion of paper and board for various purposes. 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.

### **Domestic Furniture**

Although the domestic furniture industry in Britain still contains small firms, in the last decade, the total number of firms has dropped by about one-third to under 2,000, and the tendency is for the large units to grow even larger. London is the largest centre for furniture manufacturing, but nearly one-tenth of the total output comes from High Wycombe, in Buckinghamshire. Some 70,000 workers are employed.

The value of output of firms with over 10 operatives totalled nearly £123 million in 1959. A Furniture Development Council was established in 1949, under the Development Councils Act of 1947, to improve the efficiency of the industry. It undertakes research, training and education in technical and artistic subjects, provides a technical information service and publishes statistics.

### Printing and Publishing

Printing is essentially an industry of small enterprises. At least two-thirds of the 6,000 firms have fewer than 25 employees. The main sections of the industry are concentrated in the larger towns, notably London, although firms engaged in more general printing are also located in smaller centres. The shortage of skilled workers has led firms to introduce the latest developments in high-speed printing equipment, including electronic engraving machines and advanced processes of photographic reproduction. Capital investment on plant and machinery is approaching £20 million a year. The annual turnover of the general printing, bookbinding and publishing industries, in which about 253,000 people are employed, exceeds £300 million. About 127,800 are engaged in the printing and publishing of newspapers and periodicals, with an annual turnover of about £300 million.

Book publishing<sup>1</sup> is predominantly an industry of small firms, mostly concentrated in London. Excluding H.M. Stationery Office, which is responsible for Government publications, only 10 of the several hundred publishing firms bring out more than 200 new titles each year, and a further 13 between 100 and 200. Amalgamations have led to the establishment of larger units in recent years. Popularity of paper-backed books has increased rapidly, and sales, some 70 million copies in 1959, have more than trebled since 1953.

In 1959, total sales of books amounted to about £66.9 million, and the value of exports reached the record level of £25.4 million. Australia, the United States, and South Africa are the most important overseas markets.

### 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 industry is second in size only to that of the United States. There are some 600 firms located throughout the country, employing about 121,000 people and, in 1959, their consumption of rubber totalled 295,000 tons, including 35,600 tons of reclaimed rubber. There are 14 tyre manufacturers, including several subsidiaries of United States companies. In 1959, they produced some 30 million tyres, of which 11 million were for cars and 13 million for bicycles. Exports of manufactured goods in the same year were valued at £39.7 million, two-thirds in the form of tyres and tubes. This figure does not take into account the large indirect exports on motor vehicles.

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<sup>1</sup> For further information on publishing see p. 231.



The large manufacturers undertake research on a considerable scale into new methods and materials and, in addition, advanced research work is carried out at the Shrewsbury Laboratories of the Research Association of British Rubber Manufacturers.

### *Synthetic Rubber*

A synthetic rubber plant at Hythe, near Southampton, using raw materials from the nearby oil refinery at Fawley, started operating in 1958. Its annual capacity by the end of 1960 will be 90,000 tons of styrene-butadiene rubber. There are also several smaller plants supplying special-purpose synthetic rubbers, the largest of these was opened in Northern Ireland in 1960 to make neoprene rubber.

# XI. TRANSPORT AND COMMUNICATIONS

## SHIPPING

About 17 per cent of the world's shipping tonnage of 100 gross tons and over is registered in the United Kingdom, which has the largest merchant marine in active employment. If the tonnage in the United States reserve fleet and the tonnage employed on the Great Lakes is excluded, the United Kingdom's proportion of world shipping tonnage is about 19 per cent. United Kingdom ships are estimated to carry nearly one-fifth of the world's international sea-borne passenger and goods traffic, and ply regularly on the routes linking the countries of the Commonwealth and also to most of the main ports throughout the world. The amount of the United Kingdom's own sea-borne trade carried in British ships is not known exactly, but it has been estimated that about 60 per cent of its imports and 75 per cent of its exports, by value, are carried in British registered ships. Shipping provides one of the largest net contributions to the balance of payments; a survey by the General Council of British Shipping showed that in 1958 the total net overseas earnings by all types of United Kingdom shipping was £135 million.

### THE MERCHANT FLEET

A total of 20.8 million gross tons of merchant shipping (steam and motor vessels of 100 gross tons and over) was registered in the United Kingdom at 30th June, 1959, the largest tonnage ever recorded.

Recent trends in the composition of the merchant fleet have been the reduction of tramp tonnage, the growth of tanker tonnage, the increasing size of tankers, and the commissioning of vessels specially built to carry ore, sugar and other commodities in bulk. Including Admiralty and other tankers, the United Kingdom accounts for over 6.4 million gross tons or nearly 17 per cent of the world's total tanker tonnage.

### Propulsion

The amount of coal-fired tonnage stood at some 600,000 gross tons in 1959 and continues to fall. Oil has taken the place of coal in steamships, while steam has continued to give place to the diesel engine, more than 47 per cent of all tonnage being diesel-driven in 1959. 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 shipowning, shipbuilding and marine engineering industries, is investigating the possibility of applying nuclear propulsion to merchant ships.

### Age and Size

Over 25 per cent of the total gross tonnage is under 5 years old and a further 20 per cent is between 5 and 9 years old. Of the tanker fleet, 34 per cent is under 5 years old and a further 29 per cent is from 5 to 9 years old. An analysis of the merchant fleet by size is given in Table 23.

TABLE 23  
SIZE DISTRIBUTION OF UNITED KINGDOM MERCHANT FLEET, 1959

Tonnage group	All ships		Tankers	
	No. of ships	Gross tons	No. of ships	Gross tons
100 and under 500 g.t. . . . .	1,829	458,735	178	47,492
500 " " 2,000 " . . . . .	1,248	1,199,376	94	90,401
2,000 " " 6,000 " . . . . .	652	2,646,634	39	124,667
6,000 " " 10,000 " . . . . .	1,126	8,699,457	206	1,675,922
10,000 " " 15,000 " . . . . .	395	4,528,080	234	2,698,549
15,000 " " 25,000 " . . . . .	119	2,386,796	80	1,616,778
25,000 " " 30,000 " . . . . .	22	602,720	5	135,466
30,000 g.t. and above . . . . .	4	234,737	—	—
TOTALS . . . . .	5,395	20,756,535	836	6,389,275

Source: *Lloyd's Register of Shipping*

In 1959, the four liners of 30,000 gross tons and over were 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.), all operating on transatlantic passenger services. Proposals made by the Cunard Company to replace the two *Queens* (launched more than 20 years ago) were considered by a small committee set up by the Government; in June 1960, it recommended that a 75,000 ton liner to maintain British express passenger services across the Atlantic should be built with Government assistance in the form of a substantial loan. An extensive programme of replacement of their fleets of passenger liners is being carried out by other shipping lines, and the two largest liners to be built in Britain since 1939 were launched in 1959 and 1960, the *Oriana* (40,000 g.t.) and the *Canberra* (45,000 g.t.); both are for the services from Britain to Australia and across the Pacific to North America. Several oil tankers of more than 40,000 d.w.t. have been built in British yards for the United Kingdom oil companies.

### Employment of Shipping

In June 1959, 17.5 million gross tons of trading vessels of 500 gross tons and over were owned and registered in the United Kingdom.<sup>1</sup> The usual employment of this fleet has been analysed by the United Kingdom Chamber of Shipping as follows: 8.6 million gross tons were employed as ocean-going passenger and cargo liners; 2.8 million gross tons as ocean-going tramps; 5 million gross tons as ocean-going tankers; and 1.1 million gross tons as coastal and home trade.

#### 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

<sup>1</sup> 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 nearly half a million gross tons of tankers).



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 2·8 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 with only one ship.

The British shipping industry is composed of some 270 companies, but about half the tonnage is owned by nine or ten main groups controlling over fifty 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.) and the British India lines, to India and Australia; the Orient line to 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.

About 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 now coming into 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.

Unlike ship-owning companies in many countries, the United Kingdom ship-owners receive no subsidies or other direct financial assistance from the Government. The Government has, however, recognised that the United Kingdom shipping industry is faced with severe competition in a world market (especially from ships sailing under 'flags of convenience' with small tax liabilities) and that the industry 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.

#### *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. Other classes of business transacted on the Baltic Exchange include the chartering of air transport (see p. 387) and the purchase and sale of grain and oilseeds.

### 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 (see p. 365) and on the Merchant Navy Training Board (see p. 364). The ministry fosters the development and use of modern navigational aids.

The ministry 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.

The United Kingdom is a party to the 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. 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 Lifeboat 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 1959, the Royal National Lifeboat Institution rescued 82,474 people. Lifeboats were launched 866 times in 1959, and rescued 551 people; on nearly 1,200 occasions in the twelve months to March 1960, life-saving action was taken by the Coastguard Service.



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. It is also the chief pilotage authority in the United Kingdom, licensing some 600 pilots in 41 districts in England and Wales, including London. In some cases the harbour authority is the pilotage authority. Lighthouses in Scotland and Ireland are the responsibility respectively of the Commissioners of Northern Lighthouses and the Commissioners of Irish Lights. 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 1959 in British ships on articles of agreement opened or closed in the United Kingdom was about 141,000.

#### Training

Nautical training in the United Kingdom has two distinct objectives: first, to give intending entrants into the Merchant Navy an introductory training before going to sea—this is commonly known as ‘pre-sea training’—and secondly, to prepare those who have already performed the requisite sea-service, qualifying them for admission to the examinations, for the various statutory and other certificates granted by the Ministry of Transport. Pre-sea training is not compulsory for those who go to sea as apprentices or cadets but most shipping companies will, in practice, accept only those who have undergone such a course. There are a number of residential and non-residential training establishments.

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.

Sea-going engineer officers usually receive their basic training in engineering by serving a suitable apprenticeship of not less than four years in engineering workshops ashore, although part of this period may be spent at approved courses in mechanical engineering. An alternative scheme of training has been introduced, however, under which shipping companies themselves select apprentices for a special course of training consisting of a two-year diploma course in a technical college, followed by eighteen months’ training at sea and finally twelve months’ training in an engineering workshop ashore. Sea-going engineer officers are first employed as junior engineers: they become eligible to take examinations for second and first class certificates of competency after performing periods of qualifying sea-service.

Radio officers are required to hold certificates of competency in radio telegraphy issued by the Postmaster General on the results of an open examination.

All boys who wish to join the Merchant Navy as deck or junior catering ratings must undergo a course of pre-sea training. The majority receive their training at the National Sea Training Schools but courses are also provided by certain private organisations and by a number of local education authorities.

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. The eleven largest are shown in Table 24, which lists them in order of tonnage of shipping arriving and departing and does not relate to the volume of cargo handled. 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.

*The Port of London*, with 69 miles of waterway, over 2,000 acres of dock estate and 43 miles of 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 which ended on 31st March, 1959, 52 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. In April 1959, an information service, installed at a cost of nearly £80,000, was opened at Gravesend to assist ships' masters entering the river Thames.

*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.

*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*, largest of the Channel ports, 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. 368) 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.

TABLE 24  
PORT ARRIVALS AND DEPARTURES, 1959  
(With Cargo and in Ballast)

*Thousand tons net*

Port	Foreign Trade	Coasting Trade	Total
London .. .. .	65,499	21,521	87,020
Southampton .. .. .	38,816	11,194	50,010
Liverpool .. .. .	31,689	7,659	39,348
Manchester (including Runcorn)	12,699	3,401	16,100
Glasgow .. .. .	11,566	4,172	15,738
Tyne ports .. .. .	7,353	7,567	14,920
Belfast .. .. .	2,967	11,928	14,895
Bristol .. .. .	8,796	3,365	12,161
Hull .. .. .	9,191	2,664	11,855
Swansea .. .. .	6,736	3,040	9,776
Middlesbrough .. .. .	6,935	2,817	9,752
TOTAL ..	202,247	79,328	281,575
TOTAL ALL PORTS ..	271,539	150,095	421,634

Source: *Board of Trade Journal*.

*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 the largest iron-ore port in Britain, 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, but its rapidly increasing importance derives largely from the oil which it imports and exports for local refineries.

*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 one-third of Britain's banana imports and a quarter 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.



## Ownership

The ports, in some cases docks only, previously owned by the main-line railway companies are now under public ownership and are administered by the British Transport Commission (see p. 369). The commission owns and manages, through British Transport Docks Division, some 30 per cent of Britain's dock accommodation, with a total of over half a million feet of quays. A few of the commission's ports are docks developed by former canal undertakings, such as the Aire and Calder Navigation which developed Goole. The rest are those formerly owned by the railways. In some cases—e.g., at Southampton and Middlesbrough—the railways owned the main docks in ports where the statutory authority was a harbour board. In other cases—e.g., at Grangemouth, Garston and Grimsby—the port was largely developed by the railway company which was itself the statutory harbour authority. Some railway-owned ports were, and still are, mainly used for the railways' cross-Channel services: Folkestone, Harwich, Newhaven, Fishguard, Holyhead, and Heysham are in this category. Among other ports owned by the commission are Hull, Swansea, Newport, and Cardiff. In 1959, shipping arrivals and departures at the commission's docks, harbours and wharves, at which 20,000 were employed at the end of that year, totalled over 101 million net tons, and the total cargo handled was about 56 million tons.

Other ports are controlled by a public trust on which are represented users of the port (such as shippers, importers and shipping companies) and other bodies such as Government departments and local authorities. Examples are London (controlled by the Port of London Authority), Liverpool (Mersey Docks and Harbour Board), Belfast (Belfast Harbour Commissioners) and Glasgow (Clyde Navigation Trust): 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.

## 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 has agreed to a pension scheme which, it was hoped, would come into operation at the end of 1960.

### Tanker Terminals

Most of the oil tankers coming to the United Kingdom to discharge crude oil are berthed at special tanker terminals near the oil refineries which are owned and operated by the oil companies. The deadweight tonnage capacity of some of the most important terminals is: Finnart (on the Firth of Clyde) 100,000; Isle of Grain (Thames estuary) 42,000; Tranmere (Liverpool) 65,000; Canvey Island (London) 21,000; Coryton (London) 45,000; Thameshaven (London) 60,000; Tilbury Reach (London) 47,000; Eastham (Manchester) 32,000; Milford Haven 100,000; Fawley (Southampton) 65,000; and Swansea 20,000. The terminal at Finnart was the first in Europe capable of handling fully loaded tankers of 100,000 tons deadweight at any time; a 57-mile pipeline connects the terminal to the refinery at Grangemouth, on the Firth of Forth. A new terminal was opened at Tranmere, on Merseyside, in June 1960 and one at Milford Haven, in south-west Wales, will be completed shortly. At Cardiff and at Granton, on the Firth of Forth, new terminals are planned, each costing £500,000.

The capacity of existing terminals on the Thames and at Southampton is also to be increased by dredging. As some of the larger existing tanker terminals are unable to berth fully laden oil tankers of more than 32,000 d.w.t., these new projects have assumed greater importance in handling the largest tankers.

### INLAND TRANSPORT

The dense passenger and freight traffic of Great Britain<sup>1</sup> is carried mainly by road and rail, although coastal shipping and, to a lesser extent, inland waterways play an important part in carrying freight, particularly bulk cargoes.

In 1959, the number of passenger journeys made by public transport (road and rail) in Great Britain was 15,500 million, of which 1,600 million were made on British Railways and London Transport railways. In addition, in the summer of 1960, some 5 million motor cars and 1 $\frac{3}{4}$  million motor cycles (including about half a million scooters) were licensed for use on the roads. The average annual mileage of most of the cars is estimated to be between five and ten thousand. Journeys by public transport are mainly short and a great many of them are to and from places of work. The resultant concentration of travel in the morning and evening 'rush hours' constitutes a formidable problem in London and other large centres of population.

A general picture of the domestic goods transport system in Great Britain is provided by the results of a sample survey of goods transport by road made in April 1958 by the Ministry of Transport, the first such survey for six years. 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-mileage<sup>2</sup> 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 in 1958 was reduced considerably 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. The 1952 survey had shown that the railways were responsible in that year for 43 per cent of the ton-mileage and road transport for 37 per cent.

<sup>1</sup> For an account of inland transport in Northern Ireland, see p. 380.

<sup>2</sup> Ton-mileage is calculated by multiplying the tonnage carried by the actual distance it was transported.

### THE BRITISH TRANSPORT COMMISSION

Today the British Transport Commission has an annual turnover of £730 million and is the largest single employer of labour in the country, employing some 736,000. Its present role and structure are the result of the Transport Act, 1947, and subsequent Acts.

#### The Transport Acts of 1947, 1953 and 1956

On 1st January, 1948, in accordance with the provisions of the Transport Act of 1947, most of Great Britain's inland transport system passed into public ownership. On that date, the 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 London's passenger transport system came under the control of the British Transport Commission, a newly created public authority, which was given the duty of providing an efficient, adequate and integrated system of public inland transport and port facilities for passengers and goods. In addition, the commission 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 commission 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 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 Act of 1953, and the actual reorganisation of the British Transport Commission was completed by 1st January, 1955. A further Act, the Transport (Disposal of Road Haulage Property) Act, 1956, brought to an end the denationalisation of road haulage.

Today the British Transport Commission resembles in organisation, purpose and status a large-scale commercial corporation. It is in keen competition with public and private transport by road, sea and air.

#### Present Organisation

Under the 1947 Act, the British Transport Commission is responsible to the Minister of Transport who, in turn, is responsible to Parliament. The minister appoints the members of the commission (with the maximum membership of 14 members and a chairman) and is empowered to give general directions to the commission in the national interest and to approve the outline of programmes of major development and of training, education and research.

The commission itself is a policy-making and not a managing body. It works through six policy-making committees,<sup>1</sup> each dealing with one particular subject in relation to all the commission's activities, and through sub-commissions<sup>1</sup> which are not policy-making but each of which takes a special interest in the activities of one of the seven divisions which carry on the various activities of the commission.

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<sup>1</sup> These committees and sub-commissions are mainly composed of members of the British Transport Commission.



These seven divisions are: British Railways, British Road Services, Tilling (bus) Group, Scottish Omnibus Group, British Transport Docks, British Waterways, and British Transport Hotels and Catering Services.

In the London area, road passenger transport and the underground railways are operated by the London Transport Executive (see p. 379), which was established as an agent of the British Transport Commission by the Transport Act, 1947.

Consultation with coastal shipping operators is provided by the Coastal Shipping Advisory Committee, which was set up under the 1947 Act to consider, and from time to time to report to the minister on, all matters jointly affecting the interests of the British Transport Commission and those of coastal shipping. The 1953 Act extended the scope of the committee's work to include road haulage. The members of this committee are appointed by the minister from the commission and from among representatives of coastal shipping, after consultation with interests concerned. The commission also consults with the operators of coastal liners on questions of rates and charges at the Coasting Liner Conference.

In April 1960, the Minister of Transport appointed an advisory body to examine the structure, finance and working of the British Transport Commission in the light of the Government's proposals for an extensive reorganisation of the Commission, announced by the Prime Minister in March 1960.

### **Finance**

An annual report and statement of accounts is submitted to the minister, who lays it before Parliament. The British Transport Commission is under obligation to cover its outgoings, taking one year with another, but during the present period of railway modernisation it is permitted to carry forward the deficits arising on British Railways. For the four years 1956-59 the accumulated deficit was £300 million. For the calendar year 1959 the deficit was some £74 million, including interest on British Transport stock; of this, £42 million represented an operating loss on the railways. The commission hopes that the various corrective measures that it has in hand, particularly projects that will be completed early in the railway modernisation programme, will bring the financial position into approximate balance by 1963 or 1964. 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, is making special advances to the commission of up to £400 million to meet the annual revenue deficits for this limited period. The advances made are liable to interest and will be repaid in instalments. The commission's ordinary borrowing powers (i.e. excluding those to meet deficits) are limited to £1,200 million. Further changes in the arrangements for both short and long-term finance are at present under consideration.

Gross receipts from the commission's principal carrying activities in 1959 were: passenger traffic, £288 million; freight traffic, £368 million; and miscellaneous, £16 million. In addition, gross receipts from other principal activities amounted to £55 million. Interest on British Transport Stock and other interest charges amounted to £83 million. Fixed assets at the end of 1959 were valued at £1,857 million, of which £1,621 million related to British Railways.

### **Transport Tribunal**

The Transport Tribunal, set up under the 1947 Act, has jurisdiction over the charges schemes which govern the maximum charges which the British Transport Commission may make on British Railways, on the road and rail services provided by the London

Transport Executive, at its docks, and by tolls for the use of inland waterways. The Transport Tribunal replaced the Railways Rates Tribunal and has also taken over responsibilities from certain other statutory bodies. Appeals arising from applications for road haulage (goods vehicles) licences are heard by the tribunal and it has other duties relating to harbours and canals.

### **Transport Users' Consultative Committees**

There are eleven Area Transport Users' Consultative Committees and a Central Transport Consultative Committee for Great Britain, which were set up, under the 1947 Act, to give transport users an opportunity of putting forward criticisms and suggestions for improving the commission's transport services. The members of these committees are appointed by the Minister of Transport (after consultation with the various organisations concerned) to represent commerce, industry, agriculture, labour, local authorities and the British Transport Commission itself. The conclusions of the nine area committees in England are subject to confirmation by the Central Committee, which reports its findings to the Minister of Transport and the British Transport Commission. If the Central Committee makes a formal recommendation to the minister he may, if he thinks fit, give a direction to the commission on the matter and the commission must give effect to it. The Scottish and Welsh area committees send their conclusions directly to the minister. Matters dealt with include the British Transport Commission's proposals for closing branch railway lines, withdrawing passenger train services and closing stations, and complaints by the public of inadequacy of services or facilities.

### **RAILWAYS**

Britain was the pioneer of railways. The opening of the Stockton to Darlington Railway in 1825, and 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. In the same year, an Act of Parliament prescribed a standard gauge of 4 feet 8½ inches for all new railway lines except extensions of the Great Western Railway, which then had a gauge of 7 feet and was not converted to the standard gauge until much later. The Railway and Canal Traffic Act of 1888 drew up a standard freight classification and schedules of maximum freight charges which came into operation in 1893.

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, operated under the overall management of a Railway Executive established as the agent of the British Transport Commission.

The 1953 Transport Act abolished the Railway Executive and provided for a reorganisation of the administration. The operation of British Railways is at present in the hands of six area boards (the areas corresponding with the former regions), which leave day-to-day management to the general managers of the areas. Important matters affecting general policy are reserved to the British Transport Commission and are dealt with by the British Railways Division and the Railways Sub-Commission.

### Rolling Stock and Operations

British Railways operate about 19,000 route miles of permanent way with a total track mileage of about 50,000 miles. Southern Region services alone carry annually almost the same number of passengers as all the Class I railways of the United States of America, although, of course, the average length of journey is much less. The urban and suburban passenger commuting services for London and other large conurbations carry about  $2\frac{1}{2}$  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 1,100 million passengers on British Railways. The railways are also indispensable to a great part of the basic freight traffic. Every day British Railways haul a total of nearly 57 million ton-miles of freight; the flexibility of their operations enables them to deal with sudden heavy movements of bulk freight such as coal, or crops at harvest time. In 1959 British Railways carried a total of 234 million tons of freight.

At the end of December 1959, the total staff of British Railways was 518,863, including 258,608 operating staff. Locomotion was provided by 14,457 steam, 1,800 diesel of various types, and 85 electric engines. There were 31,450 locomotive-hauled passenger carriages, 3,244 diesel multiple unit<sup>1</sup> and 5,843 electric multiple unit<sup>1</sup> carriages. British Railways also owned 34,356 road vehicles.

At the end of 1959, the British Transport Hotels and Catering Services owned refreshment rooms at 345 stations, and also 38 hotels. At 82 of the stations, tenants operated the refreshment facilities.

### Development Plans

By the end of 1959 capital expenditure on British Railways in the twelve years since the British Transport Commission came into operation, amounted to about £820 million. Some of this was accounted for by renewals, including arrears inherited from the past. The difficulties of the 1930s, the strain of the war years and the numerous post-war claims on national resources had prevented any large schemes of railway modernisation and the maintenance of an adequate replacement programme. This past lack of investment is being remedied by a 15-year modernisation and re-equipment plan, announced by the British Transport Commission in January 1955, which is designed to transform virtually all the services offered by British Railways.

In July 1959, the cost of the plan was estimated to be £1,660 million, against £1,200 million in the original version. The revised plan envisaged a greater concentration of expenditure, averaging about £190-210 million a year, in the years 1959-63. By about the end of 1963 the British Transport Commission expects a working surplus of

<sup>1</sup> Including power cars.



between £50 million and £100 million a year, against which interest charges will amount to about £85 million. The programme is being financed partly from internal sources and partly by borrowings.

Major features of the programme include the re-modelling of passenger operations to ensure fast, clean, regular and frequent services (electric or diesel) in all the great urban areas, to accelerate inter-city and main-line trains and to provide economic services on other routes. Freight services are being completely re-cast to increase efficiency, for example, by means of express freight trains with vacuum brakes and special services for export goods between manufacturing centres and the London docks. By 1963, freight mileage will have been reduced by 15 per cent, and the wagon fleet of 750,000 will be about a quarter fewer than in 1959.

The plan heralds the end of steam traction and aims at carrying out as much electrification as possible within the 15-year period. Electrification is going ahead much faster than originally expected, chiefly due to the adoption of the 25kV a.c. system—a revolutionary change. The plan provides for electrifying the route from London (Euston) to Birmingham, Manchester and Liverpool by 1964, and later, the route from London (King's Cross) to Leeds; extending electrification from London (Liverpool Street) as far as Ipswich and Harwich; extending the existing third rail electrification system of the Southern Region east of a line from Portsmouth to Reading and carrying out additional suburban electrification for London and Glasgow.

On other main lines, diesel locomotives are being introduced as rapidly as possible. About 900 main-line diesel locomotives are expected to be in service by the end of 1960, and 1,200 by the middle of 1961, with a further 600 on order or authorised. It was expected that some 4,000 multiple-unit diesel vehicles would be operating on branch lines and stopping services by the end of 1960.

A co-ordinated effort to improve the permanent way is being made in all regions. As an example, on the Southern Region a magnetic track automatic warning system is in use over 85 route miles as the first stage of a three-year scheme costing £500,000. Big new marshalling yards, each of which takes over the functions of several smaller yards, are being constructed: for example, the new Margam (South Wales) marshalling yard, opened in April 1960, is the most modern in Europe and can handle over 4,000 wagons a day. New or modernised freight depots are being built at Liverpool, Lincoln, Barking and Peterborough. Some existing depots and marshalling yards and several hundred small stations are being closed.

Passenger coaches of improved design and construction and with a better range of amenities are being introduced. In 1960, five diesel-electric *de luxe* trains came into operation on routes from London to Manchester, to Birmingham and Wolverhampton, to Leicester and to Bristol. The plan has allocated some £55 million for modernising some of the many passenger stations (there are over 5,000 stations in Great Britain). Banbury, Barrow-in-Furness and Plymouth are examples of passenger stations that have been or are being rebuilt. New signalling devices (including high-intensity colour-light signals and automatic warning control) are being introduced to increase safety on the railways.

## 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 1959, Great Britain had 193,072 miles of public highway, over two miles for every square mile of territory. There were 8,334 miles of trunk roads, 19,735 miles of Class I roads, 17,595 miles of Class II roads, 48,875 miles of Class III roads and 98,533 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 maintenance of these roads at the rate of 75, 60 or 50 per cent according to the class of road. 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 undertaken. Central Government expenditure on new construction and major improvements has been rising steadily over the past few years: for the whole of Great Britain in the year which ended with March 1959 it was £50.5 million, while in the year 1959-60 it was £64 million and in the year 1960-61 it is expected to be £75.5 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).

These 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. Priority is being given to five major routes: a trunk road from London to Newcastle, based on the Great North Road; a motor road from London to Birmingham and thence to the north-west; roads from London to the south-east by-passing the Medway towns and Maidstone and Ashford; a road from the industrial Midlands to the South Wales ports; and a road from London westwards to London Airport, the west of England and South Wales. In Scotland, the programme includes the reconstruction of the Glasgow to Stirling and Glasgow to Carlisle trunk roads. Dual carriageways for about two-thirds of the length of the Great North Road are completed or under construction. The London-Birmingham motorway was opened in November 1959. Progress has been made on two connecting stretches of the motor way from the Midlands to South Wales: the 20-mile Ross Spur was ready in the autumn of 1960 and work started early in 1960 on the 12½-mile stretch between Birmingham and Worcester. In the summer of 1960 the Maidstone by-pass on the London to Folkestone trunk road was completed. By-passes at Lancaster and Preston built to motorway standard will form part of the 110-mile motorway from Birmingham to Lancaster, and work is starting on





The 45,000 ton SS *Canberra*, built for the P and O line, after her launching at Belfast: the largest liner to be built in Britain for twenty years, she will make her maiden voyage in 1961.



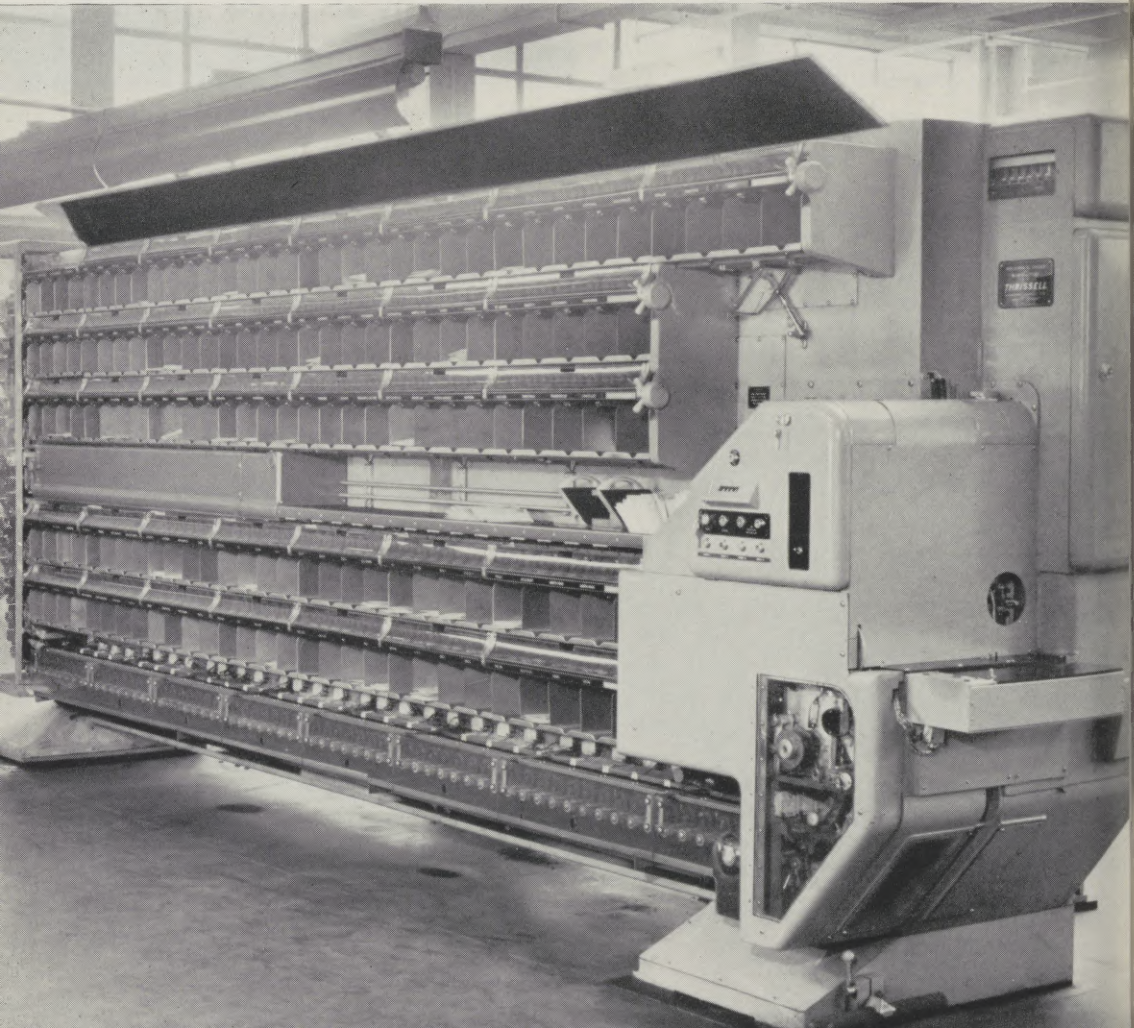
The *Dracone* flexible barge (see p. 206) can be folded for transportation when empty.





A public radiophone service started in Lancashire in 1959. Subscribers with the apparatus in their cars can make calls to, or receive them from any telephone in the United Kingdom.

The first fully automatic letter-sorting machine was installed by the General Post Office in 1960. The machine reads the dots previously printed on the envelopes by a coding machine and sorts the letters.





other sections of the road. The £11 million Dartford-Purfleet road tunnel under the river Thames, begun in 1957, will be ready for traffic by 1962. In London, roadworks began in May 1960 on a £6 million scheme which will improve traffic flow at Hyde Park Corner, the busiest road junction in the capital.

In Scotland, the building of the Whiteinch tunnel under the river Clyde, at a cost of £6.4 million, began in 1957 and is due to be completed in 1962; a twin tunnel, authorised in 1959, is due to be completed in 1963 at a cost of £3.4 million. The construction of a new road bridge across the Firth of Forth began in 1958 and is expected to be completed in 1963, at an estimated cost of £16 million. It is to be followed by a road bridge across the Firth of Tay.

### ROAD TRANSPORT

In 1959, there were 8.6 million motor vehicles licensed to use Great Britain's roads. Of these, 1.3 million were goods vehicles and 93,000 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. 379). 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

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 (who is, in fact, 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 already available, 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 keeping of records and the pay and hours of their employees.

Under the Transport Act of 1947, the British Transport Commission 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 by the Act. After the change of Government in 1951, the Transport Act of 1953 required the commission 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) 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 British Transport Commission; 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.

The road haulage industry consists of about 1.3 million licensed vehicles, and of these some 1.1 million are operated under a 'C' licence by 600,000 carriers, for their own goods. Of the other 200,000 vehicles, with 'A' and 'B' licences, about 15,000 are operated by British Road Services and the rest are operated by some 45,000 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 haulage 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**

Local authorities own and operate over ninety urban bus systems (but not that of London). The largest of these is in Glasgow, where 611 trams and 1,329 buses and trolleybuses carried some 552 million passengers in 1959. Birmingham city transport system carried 454 million passengers in 1959 and the Manchester system about 411 million. (London Transport Executive's operations are described on p. 379.)

The bus services throughout the country are operated by some 4,736 local concerns, nearly all of which belong to three main groups—British Electric Traction, the Tilling Group and Scottish Omnibuses. Tilling's and Scottish Omnibuses are owned by the British Transport Commission; British Electric Traction is a private concern, the commission having substantial shareholdings in a number of companies in this group, but no controlling interest.

### **Road Safety Measures**

Britain has the highest density of traffic in the world, giving rise to pressing problems of road safety. In 1959, 6,520 people were killed on the roads and 326,933 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 problem has, to



some extent, been held in check by road safety measures introduced under the Road Traffic Acts of 1934 and 1956. 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 an experimental 50 m.p.h. limit on certain roads in the summer of 1960; 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.

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 drive<sup>1</sup>; 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. By regulations now in force, made under the Road Traffic Act, 1960, private motor cars, motor cycles and goods vehicles up to 30 cwt. unladen weight which are ten years old or more must be submitted for an annual test, at an approved testing station, of the condition of their brakes, steering gear and lighting equipment. Vehicles of these types may not legally be used on public roads after specified dates without a valid test certificate. It is expected that regulations will be made during 1961, under which the grant of a licence permitting a vehicle to be used on the roads will, in appropriate cases, be conditional on the production of a valid test certificate.

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.

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, 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. In London, and in some other local authority areas, parking meters have been introduced to regulate the length of time vehicles are parked; and increased off-street parking facilities are being provided. 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 February 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.

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<sup>1</sup> A person entering the United Kingdom and not holding a current British driving licence is entitled to drive for one year or until the licence issued in his previous country of residence expires, whichever is the shorter period.

## 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 which 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.

### The System

There are some 2,600 miles of navigable inland waterways in Great Britain, some 2,150 miles of which now belong to the British Transport Commission; 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 2,170 miles of inland waterways which originally came under the control of the British Transport Commission, 283 miles have been closed to navigation or abandoned, leaving 1,887 miles still open, of which 1,338 miles are in commercial use. Since 1955, the canals have been managed separately by the waterways division of the commission, known as British Waterways. 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 1959, total traffic on British Waterways amounted to 9 million tons, of which 3.7 million tons were coal, 2.2 million tons liquids in bulk and 3.1 million tons general cargo. 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 British Transport Commission at the end of 1959 owned 19 tugs and 1,101 carrying craft with a carrying capacity of 45,611 tons, including 189 power-driven craft with a carrying capacity of 9,276 tons.

### Development

Since assuming control, the British Transport Commission 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 five-year 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, the river Weaver, and the Grand Union Canal (on the stretch below Berkhamsted). In addition, since 1955, British Waterways have spent over £750,000 in extending and improving warehousing and terminal facilities, building new traffic craft and modernising existing vessels. Annual maintenance expenditure on the other canals of commercial importance has increased from £582,000 in 1954 to over £880,000 in 1959.

The future of the country's system of inland waterways was the subject of a report published in 1958 by a committee of inquiry appointed by the Minister of Transport. Among the recommendations of this committee were proposals for the separation of waterways no longer of commercial value from the rest and for their redevelopment for other purposes. In February 1959, the Government drew attention to the extensive legislation that would be needed if the main recommendations of the report were adopted, and stated that its intention was to introduce experimental measures designed to gain experience which would be of help in framing future legislation. The Government has, therefore, set up an Inland Waterways Redevelopment Committee to consider and advise upon schemes for the redevelopment of inland waterways no longer of commercial value.

### 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 8 million people.

London's passenger transport system, in its modern sense, began in 1829 when the first omnibus, horse-drawn, appeared in 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 Central London Railway, then followed 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.

#### *The London Transport Executive*

The London Transport Executive, which consists of a chairman and seven members, three of whom are part-time members, operates and manages, on behalf of the British Transport Commission, all bus, coach and underground railway services in the London area in conjunction with British Railways, which provide the main-line and suburban railway services. (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. In 1959, 3,425 million passenger journeys were made on the London Transport system.



London Transport's railway network stretches 18 miles from north to south, 32 miles from east to west, and 49 miles from north-west to east. The total length of the railway over which London Transport trains operate is 259 miles, of which 90 miles are underground, including the longest tube tunnel in the world, 17¼ miles long. London Transport trains serve 280 stations.

At the end of 1959, London Transport's diesel buses and coaches travelled over 8,744 miles of roads, and trolleybuses (which are operated by electricity) over 421 miles.

To carry traffic over all this area, the London Transport Executive in December 1959 owned 4,050 railway cars, 7,273 buses and coaches and 1,070 trolleybuses. The total staff employed at the end of 1959 was 77,460, of whom 10,710 were women.

Since 1945, all tramcars have been replaced by buses, and by 1962 all the trolleybuses will be replaced, after more than 20 years' service, 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 over £20 million for new rolling stock, to be completed by 1962 at the latest, and has undertaken £5 million worth of further track improvement schemes, which should also be completed by 1962. These are part of a general modernisation scheme for the Underground, on which over £30 million, including replacement of rolling stock, is expected to be spent in the four years to 1963. Proposals are under consideration for a new tube railway, estimated to cost £55 million, between Victoria Station and Walthamstow, in north-east London.

#### PUBLIC TRANSPORT IN NORTHERN IRELAND

With the exception of passenger transport in Belfast, which is provided by the city corporation, public road passenger and freight transport and rail services within 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.

The following figures relate to the authority's undertaking during the year ended 30th September, 1959; they cover mileage on the Great Northern Railway system and the traffic on that system taken over by the Authority on 1st October, 1958.

Permanent way (open for operation) .. .. .	339½ miles
Locomotives .. .. .	122
Diesel rail cars and trailers .. .. .	153
Railway coaching vehicles .. .. .	353
Railway freight vehicles .. .. .	5,072
Road route mileage (omnibus) .. .. .	2,716 miles
Omnibuses and coaches .. .. .	961
Goods motor vehicles and trailers .. .. .	1,548
Passengers carried during year (rail and road) ..	98,015,955
Merchandise carried during year (rail and road) ..	2,384,882 tons
Livestock carried during year (rail and road) ..	919,956 head

## Roads

On 31st March, 1959, there were 13,735 miles of public roads in Northern Ireland, comprising 348 miles of trunk roads, 961 miles of Class I roads, 1,756 miles of Class II roads, 2,867 miles of Class III roads and 7,803 miles of unclassified roads. The Ministry of Commerce is responsible for the maintenance and improvement of the trunk roads and makes grants from the Road Fund (which is derived from such sources as the proceeds of taxation of mechanically propelled vehicles registered in Northern Ireland and from driving licence fees) to help the local authorities who are responsible for the other roads. During the year ended 31st March, 1959, a total of £7 million was spent on work on all types of public roads in Northern Ireland.

## CIVIL AVIATION

United Kingdom civil air services are provided by the two public corporations, British Overseas Airways Corporation (BOAC) and British European Airways (BEA), and by some eighteen independent air transport companies. The development of United Kingdom civil air services since 1949 is shown in Table 25.

### Growth of Air Services

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.

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 (see p. 385), 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.

The one serious obstacle to a continued expansion of British civil air transport after 1945 was the absence of any new British civil aircraft to replace the pre-war types. Throughout the war the British aircraft industry had concentrated entirely on the production of fighters and bombers for the Allied Forces, leaving the production of transport aircraft to the United States. Although this was a period of rapid expansion for the two corporations, it was the entry into service of the first jet powered aircraft, and particularly the prop-jet *Viscount*, that brought about a faster rate of development of civil aviation in the United Kingdom. The prop-jet *Britannia*, the return to regular service of the pure-jet *Comet* and the *Conway* by-pass engines employed in the Boeing 707, have further enhanced the reputation of the United Kingdom aircraft industry and British airlines.

### **The Role of the Government**

Responsibility for the general development and expansion of United Kingdom civil aviation, previously a function of the Minister of Transport and Civil Aviation, is now vested in the Minister of Aviation, a new office created in the Government reorganisation of October 1959. The Ministry of Aviation is also responsible for supervising 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 also issues 'air operations' certificates, which impose recognised standards of safety on all commercial operators of air services.

In the international sphere, the Minister of Aviation is responsible for participation in the work of the International Civil Aviation Organisation (ICAO) of the United Nations Organisation and, with the Foreign Office and the Commonwealth Relations Office, for dealings with other countries relating to civil aviation. He also advises the Colonial Office on civil aviation matters.

The Government's relations with the air corporations and with the independent operators are described on p. 384. Three special bodies advise the minister in the exercise of certain of his responsibilities: the Air Transport Licensing Board, the Air Registration Board and the Air Safety Board.

#### *The Air Transport Licensing Board (ATLB)*

The ATLB was established by the Civil Aviation (Licensing) Act, 1960, and 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. The Board takes over some of the functions of the former Air Transport Advisory Council and is an independent licensing authority, its decisions being subject to appeal to the minister.

#### *The Air Registration Board*

The board was set up in 1937, and consists of 18 members, of whom 16 represent the interests concerned with civil aviation and two are appointed by the minister. It is an independent, non-profit-making limited company to which the minister has delegated certain functions relating to the design, construction and maintenance of civil aircraft. The work of the board includes the investigation, by its surveyors, of aircraft and associated equipment for the purpose of making recommendations to the minister



concerning the issue and renewal of certificates of airworthiness. It also conducts the technical examinations for the licensing of aircraft maintenance engineers, flight engineers and commercial pilots.

#### *The Air Safety Board*

The board is a standing advisory body of experts responsible to the minister for keeping under continuous review the needs of safety in British civil aviation. It recommends measures to increase safety and efficiency in the operation of British civil aircraft throughout the world and in the system of ground facilities provided for all civil aircraft operating over the United Kingdom. In exercising his responsibility for safety, the minister, advised by the board, regulates the operation of aircraft and the conditions under which passengers and cargo may be carried, the licensing of flight crews, the effectiveness of air traffic control and of navigational aids (see p. 388).

TABLE 25  
UNITED KINGDOM AIRWAYS OPERATIONS ON SCHEDULED SERVICES

<i>Domestic Services</i>					
Calendar Years	BEA		Independent Companies		
	Passengers Carried '000	Total Load Short Ton-Miles '000	Passengers Carried '000	Total Load Short Ton-Miles '000	
1949 (a) .. ..	453	6,971	61	481	
1955 .. ..	1,212	21,694	220	3,186	
1958 .. ..	1,164	24,338	299	4,596	
1959 .. ..	1,377	29,663	360	5,354	
<i>International Services</i>					
Calendar Years	BEA & BOAC		Independent Companies		
	Passengers Carried '000	Total Load Short Ton-Miles '000	Passengers Carried '000	Total Load Short Ton-Miles '000	
1949 (a) .. ..	468	87,734	11	293	
1955 .. ..	1,782	222,924	275	17,030	
1958 .. ..	2,062	278,445	460	22,555	
1959 .. ..	3,763	357,395	940	34,028	

Source: Ministry of Aviation.

(a) Figures for international services in 1949 include the operations of British South American Airways, which was merged with BOAC in 1949.

### **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. The Civil Aviation (Licensing) Act, 1960, enables the independent operators to apply on an equal basis with the corporations to the ATLB for permission to operate scheduled services.

### **The Corporations: Powers and Constitutions**

The existing powers and constitutions of BOAC and BEA are laid down by the Air Corporations Acts, 1949 to 1956. Each corporation consists of a chairman, deputy-chairman and from 5 to 11 members, all of whom are appointed by the minister. In the case of BOAC, the minister may, if he wishes, appoint two deputy-chairmen.

The annual reports and statements of accounts of the two corporations are laid before Parliament by the minister. In addition, each corporation must submit, before the beginning of every planning period (of three years), a programme of the services it proposes to provide and of any other activities it intends to undertake, as well as an estimate of its receipts and expenditure on revenue and capital account during the period.

#### *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. Under the Air Corporations Act, 1960, the borrowing powers of BOAC and BEA were raised to £180 million and £95 million respectively. These limits are expected to meet the corporations' requirements up to 31st March, 1964.

#### *Ministerial Control*

Although the minister is empowered to give general directions on matters affecting the national interest, for example, the placing of orders for aircraft, these powers are very seldom used. The corporations function as commercial undertakings, but the ministry is able to exert its influence by means of frequent but informal exchanges of views. The minister also keeps in touch with the corporations regarding plans for new aircraft and new routes, since he has to negotiate the necessary rights with foreign governments. He also provides most of the aerodromes in the United Kingdom from which the corporations operate, and the necessary navigational aids and communications.

#### *Labour Relations*

In 1946, the National Joint Council for Civil Air Transport was set up as the body through which terms and conditions of service between the corporations and the various trade unions representing the employees are negotiated and matters affecting safety, health, welfare and efficiency are discussed.

## Operations of the Corporations

The services, fleets and results of the two corporations in 1960 are summarised below.

### *British Overseas Airways Corporation*

BOAC operates scheduled services to all parts of the world. Its terminals in Australia, the Far East and Middle East are at Sydney, Melbourne, Tokyo, Hong Kong, Singapore, Karachi, Delhi, Bombay, Bahrain, Kuwait, Tehran and Aden; in Africa, at Johannesburg, Nairobi, Accra and Lagos; in North America and the Caribbean, at New York, Chicago, Boston, Toronto, Montreal and Jamaica; and in South America, at Bogota, Caracas and Santiago, the service to South American cities having been resumed, after an interval of six years, in January 1960. There are regional services between New York and Bermuda, Nassau and Jamaica (these services operate as extensions of the London–New York route), and between Montreal and Jamaica.

BOAC operates a number of services in close association with other airlines. Associate arrangements exist between BOAC and Qantas Empire Airways, South African Airways, Central African Airways Corporation, East African Airways Corporation, Nigerian Airways, Ghana Airways, Middle East Airlines, Cathay Pacific Airways, Air India International and Trans-Canada Airlines. In 1959, BOAC inaugurated its first round-the-world service. It was the world's first such service operated completely by jet-powered airliners.

This network of services is supplemented by the activities of subsidiary and associated enterprises overseas in which BOAC participates financially or with which it has technical or management agreements.

BOAC has a controlling financial interest in airlines operating in the southern Red Sea area, the Caribbean and the Persian Gulf. It is associated, either financially or through advisory and other agreements, with airlines providing services in East, West and Central Africa, Malaya, the Far East, Borneo, Turkey, the Middle East, and the Bahamas.

In common with other International Air Transport Association (IATA) members, BOAC makes available two classes of service on its route network—first class, and either tourist or economy class, according to the route. Additionally, it offers a still lower fare class of service on certain routes between the United Kingdom and Colonial Territories.

BOAC's operational fleet in June 1960 consisted of: 19 Mark 4 *Comets*; 15 medium-range Mark 102 *Britannias*; 17 long-range Mark 312 *Britannias*; 10 *DC 7Cs* (only used on non-scheduled services); and 5 Boeing 707s. Orders for 10 Boeing 707s., 35 Vickers *VCI0s* and 10 Vickers *Super VCI0s* were outstanding.

BOAC has many pioneer achievements to its name: they include the world's first pure-jet air transport service between London and Johannesburg in May 1952 by *Comet I*; the first airliner, the Bristol *Britannia*, to provide long-range prop-jet travel (in 1957); and the introduction of the *Comet 4* on the North Atlantic route in October 1958, the first transatlantic pure-jet aircraft.

On all its services in the financial year 1959–60, BOAC carried 591,000 passengers, 10,385 short tons of freight and 4,349 short tons of mail, compared with 291,136 passengers, 6,756 tons of freight and 3,407 tons of mail in 1954–55.

In 1951–52, BOAC for the first time had a surplus amounting to £275,000, after payment of interest on capital and before crediting the Exchequer grant of £1.5 million in that year. Since 1952–53, BOAC has operated without Exchequer grant. From 1953–54 to 1956–57, the annual surplus varied from £1 million to £117,000.



In 1957-58 and 1958-59 deficits of £2.8 million and £5.2 million were incurred, due to a series of temporary adverse factors. In 1959-60, the corporation itself had a surplus of £278,000 after payment of £4 million in capital charges, reflecting both increased traffic and the effects of the change over to turbo-jets; but in respect of its associated airline companies BOAC incurred a deficit of £1.2 million.

From 1954-55 to 1959-60, the capacity on BOAC services increased from 209 million to 433 million capacity-ton-miles, traffic revenue increased from £36.6 million to £70.6 million, and operating costs were reduced from 39.6 pence per capacity-ton-mile to 33.8 pence.

### *British European Airways*

BEA is the seventh largest airline in the world and the largest in Europe, judged by the annual number of passengers carried—3.29 million in the financial year 1959-60. In that year it operated on its own behalf, in conjunction with its associated companies and subsidiaries, a network of services covering 42,056 unduplicated route miles, serving 84 airports in the United Kingdom, Europe, North Africa, and the Persian Gulf, within a periphery on which the farthest points to the north, south, west and east are Bergen, Doha, Lisbon and Moscow. Its services within the United Kingdom include a number which cannot be operated commercially but which meet a vital social need; these include services to the Highlands and Islands of Scotland. Tourist fares have been introduced on all BEA's routes. 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.

BEA's operational fleet in June 1960 comprised 6 *Comet 4Bs*, 24 *Viscount 701s*, 21 *Viscount 802s*, 19 *Viscount 806s*, 29 *Pionairs*, 7 *Pionair Leopard* freighters, 2 *Heron*s, 3 *Rapides* and 5 helicopters. At that date 20 *Vanguards*, 3 *Comet 4Bs* and 24 *DH 121s* were on order.

The *Viscount V 701* 'Discovery' class was brought into regular scheduled service in April 1953, on the routes to Istanbul and Cyprus, thus inaugurating the world's first commercial operations with prop-jet aircraft. A larger version, the *Viscount 802*, was brought into service in February 1957 between London and Paris. Since September 1958, practically all BEA's international services have been operated by *Viscounts*. The larger, more powerful and highly economical turbo-prop *Vanguard* entered into service with the corporation in the autumn of 1960. In April 1960, BEA started turbo-jet services using *Comet 4B* airliners. These fast jet liners are to be followed by the 600 m.p.h. *DH 121* jet airliners which are for delivery starting in 1963.

Experimental scheduled services with helicopters were carried out between 1950 and 1956. In 1960, BEA applied for permission to operate services on internal routes within Great Britain, and between London and Amsterdam, Brussels and Paris. The first service will probably start in 1961. Two British helicopters—the Westland *Westminster* and *Rotodyne*—which may prove suitable for airline service within the next few years, are being developed.

In addition to 3,289,606 passengers, BEA carried 36,395 short tons of freight and 7,848 short tons of mail in 1959-60. The figures in 1954-55 were 1,874,316 passengers, 14,884 tons of freight and 6,964 tons of mail.

Over the period 1954-55 to 1959-60, BEA's capacity increased from 98 million to 192 million capacity-ton-miles and operating revenue increased from £17.1 million to £36.5 million.

In 1954-55, BEA achieved its first net profit, of £63,000. In 1955-56, it earned a net profit of £603,614, which was sufficient to wipe out its accumulated deficit and leave

a surplus of £64,528, and it has earned a profit in every subsequent year. In 1959-60, its profit totalled £2,086,078.

### **The Independent Airline Companies**

In 1960, there were about 20 independent airline companies. A merger of the two largest companies took place early in 1960, and other moves to establish larger units are under consideration. Shipping lines have considerable, in some cases controlling, interests in the more important companies. Most of the principal independent companies are members of the British Independent Air Transport Association.

Because the air corporations were already operating services on all the major international routes in 1952, most of the opportunities for the independent companies to undertake scheduled services have been in the operation of secondary routes and the provision of special types of services. The secondary routes on which the independent companies provide passenger services at present consist mainly of domestic routes and routes from United Kingdom provincial centres to Europe and the Channel Islands. They also operate cheap regular services to certain points in the Colonies, and to Ghana and Tunis. Other special services are vehicle ferry services from the United Kingdom to Europe, inclusive holiday tour services to Europe and to Africa, and all-freight services, also to Europe and Africa. Some of the larger companies operate subsidiaries in overseas countries and, in some cases, also provide management services for foreign airlines.

Passenger traffic on the independent companies' scheduled services has risen from 122,000 in 1952 to 940,000 in 1959. The number of cars carried on the vehicle ferry services has risen from 6,797 in 1952 to 85,000 in 1959.

#### *Charter Services*

The greater part of the independent companies' operations still consist of general charter work, notably air trooping which accounts for more than half the total passenger miles flown by independent airlines on all operations, both scheduled and charter. Other charter work includes the carrying of ships' crews to and from overseas ports; transporting the staff of public or private concerns operating overseas; taking parties to football matches and race meetings in the British Isles; carrying livestock, machinery, foodstuffs, flowers and other valuable, fragile or perishable cargo. There are also several firms that specialise in other aerial activities, notably aerial survey and pest control.

Much charter business is now arranged through the air section of the *Baltic Exchange*, the London market for shipping space (see p. 362), where business from any part of the world is handled between brokers representing the owners of aircraft available for hire and the prospective shippers of cargo or organisers of passenger trips. Inquiries for the charter of aircraft were first received on the *Baltic Exchange* as long ago as 1925, but it was not until 1947 that an air section was formed. The *Airbrokers Association*, formed in February 1949, operates, in London, a world market for chartering aircraft to carry cargo and passengers.

### **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, not operated by the Government, used for commercial operations are subject to the minister's licensing, inspection and regulation.

There are approximately 110 civil aerodromes in the United Kingdom and, in addition, about 56 Service aerodromes are available for civil use. Those under civil control include 24 directly controlled by the ministry, 3 in the Channel Islands and 1 in the Isle of Man (administered by the local island governments) and 26 aerodromes licensed for public use, of which 17 are owned by municipalities. Customs facilities are provided at 12 of the ministry's aerodromes and at 14 others.

The main airports used by international scheduled services in 1959-60 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 1959, all United Kingdom civil aerodromes handled 8.3 million passengers. Of this total, London Airport dealt with 4.1 million, and Gatwick, 370,000. Outside the London area, Manchester (Ringway) handled the largest number, 566,000; followed by Glasgow (Renfrew), 529,000; Belfast (Nutt's Corner), 324,000; Ferryfield (Kent), 262,000; Prestwick, 244,000; and Isle of Man (Ronaldsway), 218,000. The number of movements of aircraft engaged on commercial transport operations in 1959 was 358,000 for all United Kingdom aerodromes.

### *Development*

London 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. Most of the European short-haul services are now handled at the new passenger buildings in the central terminal area opened in April 1955. For long-distance passengers a £3 million terminal is being constructed; these buildings will be completed in 1962. The new airport at Gatwick, 25 miles south of London, has been developed as the second airport for London. Initially it is being used as the main bad weather alternative to London Airport, and for services to the Channel Islands by BEA and some of the independent operators; eventually many more European services are expected to operate from this airport. Built alongside the main London to Brighton railway, it 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 (near Ayr, in Scotland), the second international airport in the United Kingdom, is to be developed so that it can accommodate the new large jet aircraft. The runways at Ringway Airport, near Manchester, have been lengthened and a new terminal building is being built.

### **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 civil airliners flying into the United Kingdom along the corridors of controlled airspace called airways.



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 functions of the Board are to formulate air traffic control policy in the United Kingdom, to act as the co-ordinating body in negotiations with other countries, and with the ICAO. The Board is assisted by an air traffic control executive, and is responsible jointly to the Minister of Aviation and the Secretary of State for Air.

In 1950 the then Ministry of Transport and Civil Aviation introduced a system of airways covering the main traffic routes and associated 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 Airport for southern England, at Preston for the north of England and Wales, and at Prestwick for Scotland and the Atlantic. The Southern Air Traffic Control Centre, situated on the boundary of London 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). A series of long-range radar stations that is being set up will extend radar coverage very widely.

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, is developing an automatic landing system which is expected to be in use within the next few years.

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.

On routes outside the United Kingdom, British airline operators rely upon ground organisation provided by the countries over which they fly. In January 1947, the airways corporations took the initiative in forming a company, registered in the United Kingdom, called *International Aeradio Limited* (IAL), for the purpose of helping countries in need of assistance by providing radio communications, air traffic control and navigational facilities for civil aviation. Airlines of other countries have accepted invitations to become shareholders, and the membership is broadly representative of international civil aviation. IAL operates by entering into contracts with Governments to provide whatever degree of assistance is required to enable States or Administrations to fulfil their international obligations under the Chicago Convention on Civil Aviation for the provision and maintenance of ground facilities for civil aviation. In 1960, International Aeradio Ltd. was operating, either directly or through subsidiary or associated companies, in 30 countries. It has over 45 overseas stations all over the world as well as at London and Cranfield, Bedfordshire, in the United

Kingdom. In all overseas areas, IAL trains locally engaged staff up to the standards required for the services it provides; this policy has been so successful that more than 85 per cent of overseas staff are locally recruited. At Southall, Middlesex, IAL has established a School of Air Traffic Control to train its own air traffic control officers as well as those from other interested organisations.

## THE POST OFFICE

The Post Office with its staff of some 371,000 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'.<sup>1</sup>

The ministerial head of the Post Office is the Postmaster General who, with the Assistant Postmaster General, is responsible to Parliament for his department. Under the Postmaster General, the permanent head of the Post Office is the Director General, who is supported by three Deputy Directors General, one of whom is the Comptroller and Accountant General, and an Engineer-in-Chief. At the next level there are eight departmental directors and a Public Relations Officer. The Post Office headquarters is in St. Martin's-le-Grand in the City of London.

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 regional director; London has two regional directors, one for postal services and one for telecommunications. In the United Kingdom there are 475 head post offices, nearly 25,000 subordinate post offices, and 56 telephone areas.

The staff at headquarters and in the directorates and regions is divided into two main groups: general Civil Service grades (administrative, executive and clerical) and special grades recruited directly by the Post Office for its engineering and operational activities.

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, on which are represented local authorities, chambers of commerce, women's organisations, the press and other local interests; these committees are formed on the initiative of, and are maintained by, the 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 business undertaken on behalf of other Government departments.

Although a Government department, the Post Office is also an immense trading concern. Its *Commercial Accounts for 1958-59* showed that its income that year was £417 million and its expenditure £408.3 million, leaving a surplus of £8.7 million. The postal and telephone services earned surpluses of £3 million and £8.2 million respectively, and the telegraph service incurred a deficit of £2.5 million.

In 1960, the Government proposed, in a White Paper, *The Status of the Post Office*

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<sup>1</sup> Charles II declared all Cromwellian Acts null and void at the Restoration, but his Parliament passed a similar Act in 1660.

(*Cmd. 989*), that more practical recognition than hitherto should be given to the commercial character of the Post Office, but that direct control by a minister responsible to Parliament should be retained. Under the proposals, Post Office finances would be separated from the Exchequer: there would be a separate Post Office Fund, managed by the Postmaster General, into which all Post Office receipts would be paid and out of which all payments would be made. Traditional Treasury controls over the expenditure of money raised by taxation were said to be inappropriate for an organisation whose aim was to live on what its customers spent on its services. These controls would, therefore, not be exercised over the Post Office, except in relation to investment and foreign exchange, and the pay and conditions of Post Office staff, who would remain civil servants. While not neglecting its social obligations, the Post Office would be required to ensure that its income would be enough, taking one year with another, to pay its expenses. Parliament would still be able to satisfy itself about Post Office policy and management, and the borrowing of money for capital expenditure would still be authorised by Acts. It was hoped that legislation to give effect to the proposals would be introduced in the Parliamentary session beginning in the autumn of 1960.

### 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 heavy charges, based upon the actual distance a letter was carried, were among the factors which inspired Rowland Hill in his great work of postal reform that led to the establishment of a uniform postage rate. In 1840, a uniform inland rate of postage of one penny per half-ounce payable in advance came into operation, prepayment to be made by means of adhesive postage stamps. Since the business world found cheap postage a boon and since it proved ultimately a great financial success, it was imitated by almost every country in the world.

The inauguration of the penny post (the rate remained unchanged until 1918)<sup>1</sup> was followed by a rapid extension of the scope of the postal services, beginning in 1841 with the introduction of the registered post to ensure additional safety for valuable mail. 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-one years from 1938-39 to 1958-59, the parcel post increased from 185 million items a year to 243 million, registered postal traffic from 62 million to 94 million and other postal correspondence from 8,240 million to 9,700 million. Every day the Post Office handles about 27 million letters and parcels. Each year the Post Office deals with an ever-increasing volume of Christmas mail; during the Christmas-New Year season, 1959-60, more than 920 million letters and cards were posted.

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<sup>1</sup> The minimum postage rate for inland letters is now 3d. for one ounce.



The Post Office's services have been developed to match the needs of the traffic. Improvements include the provision of motor mail vans<sup>1</sup> and electrical trucks for parcel deliveries, controlled by walking postmen, postal-sorting carriages on the railways, special mail trains on certain routes and the ingenious apparatus by which bags of mail are delivered and collected by trains running at express speed. For quick transmission of mails within the central area of London, the Post Office has for 21 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; a seventh station is under construction.

The Post Office Research Station at Dollis Hill, London, has developed a partly electronic letter-sorting machine (ELSIE). Twenty machines are being tested 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 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 3,000 tons of mail are carried by air within the United Kingdom. Special night air services for mail are run between Great Britain, Northern Ireland and the Irish Republic. In the year ended March 1959, total overseas correspondence amounted to 450 million items, 65 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 about 35 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 12 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 some 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 14 million inland telegrams in 1958-59, of which nearly a quarter were greetings telegrams; the average time between handing in an inland telegram and its receipt at the delivery office was 20 minutes.

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<sup>1</sup> In 1919, the Post Office inaugurated its own motor transport fleet with 48 vehicles; this fleet now numbers over 37,500, of which about 14,600 are red mail vans, and 19,200 are green engineering vans.

## Telex

The Telex Service provides a communication system which combines the speed of the telephone and the authority of the printed word. Customers are provided with a teleprinter and a line to the nearest telex exchange. Calls may be made between the rapidly increasing number of telex users in the United Kingdom (6,000 in June 1960) and also to some 100,000 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, and thus are available for attention when his office reopens. Use of the telex service is expanding rapidly and the Post Office is planning for a system of 20,000 subscribers in the United Kingdom by 1970.

For call charging purposes the United Kingdom is divided into 50 charging areas, each with its telex centre. By the end of 1960, all inland telex calls will be connected automatically by dialling and charged in 2d. units, the amount of time bought for 2d. ranging from 60 to 15 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 services 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 1959, there were 6,009 local telephone exchanges in the United Kingdom. There were some 7.53 million telephones, including 73,000 telephone call offices for public use. Four-fifths 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 400,000 a year. A system of national telephone numbers is planned, which will make it possible to dial trunk calls. Trunk dialling by subscribers began in Bristol in December 1958; the system will have been extended to about forty other towns by the end of 1960, to 60 per cent of all telephones by 1965 and to 90 per cent of all telephones by 1970. The introduction of this new group routing and charging equipment (GRACE) will bring the advantages of quicker service, automatic accounting and cheap long distance calls of short duration, and will constitute 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, 1959, the Post Office handled a total of 340 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, 1959, was 3,700 million, an increase of 74 per cent compared with 1938-39.

A public radiotelephone service, introduced in 1959, 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 1960.

There are several specialised services available by telephone. Well over 90 per cent of subscribers served by automatic exchanges can use the '999' emergency dialling service, which enables them to be connected as quickly as possible, and free of charge, to the police, ambulance or fire brigade services, and in coastal districts to lifeboat and coastguard stations. The automatic time service gives over 3 million callers access to the correct time when they dial the three-letter code TIM or a figure code which connects them to a speaking clock. A telephone weather forecast service is available in nine cities. In London, a telephone information service provides details in English, French and German of important events being held in and around the capital on the day of the call. There is a similar service in Edinburgh and Glasgow during the summer months: the announcements are in English only. A test match cricket score service operates at about 30 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.

### **Private Telecommunications Services**

There are 93,500 circuits 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 telegraph services from the United Kingdom, except those offered by foreign telegraph companies. Cable and Wireless Ltd., now a Government agency, 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, 1959, 12.2 million messages were transmitted from London, and a similar number received.

*Telex.* The International Telex Exchange provides a teleprinter service to nearly 50 countries abroad. In 1958-59, 1.9 million outgoing international calls were made, and a similar number received from abroad. In mid-1961, facilities will be provided enabling telex customers in the United Kingdom to dial direct to many European countries.

*Telephones.* Telephone service to Europe is through the Continental Exchange in London, from which some 800 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 1958-59, 2.5 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 connected through the International Exchange (also in London).

In 1956, the first transatlantic telephone cable—also the first long-distance submarine telephone system in the world—was inaugurated. The cable provides 43 telephone circuits with the United States and 13 with Canada. Six circuits are used to provide direct telephone communication between the United States and six continental countries. In addition to the telephone circuits, the cable carries some 60 telegraph and telex channels to the United States and 24 telegraph channels to Canada, the latter supplementing the existing telegraph cables and improving communications with Australia and New Zealand via Canada. The system provides a secure service that is dependable day and night and free from the distortions and fadeouts that affect radiotelephone circuits. The whole project was undertaken jointly by the United Kingdom Post Office, the American Telephone and Telegraph Company and the Canadian Overseas Telecommunication Corporation, which jointly maintain it.

Another transatlantic cable is to be laid by the Post Office cable ship *HMTS Monarch*, between Scotland and Newfoundland, by 1961, at a cost of £8.5 million, and will provide capacity for at least 60 simultaneous telephone conversations. It will form part of the projected round-the-world Commonwealth telephone cable agreed in principle at the Commonwealth Trade and Economic Conference held in Montreal in 1958. It is expected that the £26 million section across the Pacific ocean, between Canada and New Zealand, will be laid by 1964, the New Zealand–Australia section having been laid by 1962. This will complete the first half—some 14,000 route miles—of the network round the world. Completion of the second half, via Singapore, East Pakistan, India, West Pakistan, South Africa and thence to Britain, is expected to take a further five years after 1964. The cost of the whole project is estimated at about £80 million; the United Kingdom will contribute about 50 per cent of the capital cost, the remaining 50 per cent being shared by other Commonwealth countries. In 1960, the United Kingdom Post Office and the American Telephone and Telegraph Company concluded an agreement to construct a third transatlantic telephone cable, by 1963, at a cost of £12 million. This will be the largest ocean cable in the world, and will carry 128 telephone circuits between the United Kingdom and the United States, providing for the rapidly increasing telephone traffic between the two countries. Before the first transatlantic cable came into use in 1936, the weekly averages of radio calls between London and Canada and between London and the United States were 530 and 2,320, respectively. By March 1960, traffic had risen to weekly averages of 2,400 and 6,800, and was growing at the rate of about 500 calls a month. The first telephone cable between the United Kingdom and Sweden was laid in 1960, and one between Scotland, the Faroe Islands and Iceland is to be laid in 1961; later, this will link with a cable from Iceland via Greenland to Canada.

A new cable ship of 4,000 tons is being built for the Post Office, at a cost of about £1.5 million; it will be used mainly for the maintenance of cables in the north Atlantic. A second new cable ship, of 7,000 tons, which will be used in laying the Commonwealth cable, is to be built at a cost of over £2 million.

The United Kingdom is a member of the European Postal and Telecommunications Administration and of the International Telecommunication Union, which is the co-ordinating body for telecommunications throughout the world, and has its headquarters at Geneva.

### **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 for radiotelegraph and radiotelephone communications with ships at sea at ranges of up to some 300 miles. 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 1959, the stations handled 205 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, connect radiotelephone calls between telephone subscribers ashore and suitably equipped ships, broadcast navigational warnings and weather bulletins, and operate direction-finding services for ships.

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 1959, the stations dealt with 374 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 most of these and many similar transactions the Post Office is an 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 measured on a time basis at post office counters has increased greatly compared with the total for 1938-39. In the twenty-one years to 1958-59, the value of transactions with the public increased from just over £1,000 million to £5,825 million. In 1958-59, the Post Office paid out 37 million postal drafts in payment of benefits under the National Insurance Scheme, and sold £53 million worth of premium savings bonds.<sup>1</sup>

Counter sales include also an increasing volume of direct Post Office business: during the year ended 31st March, 1959, about 694 million postal orders were issued by post offices. The work of the Post Office Savings Bank is described in Chapter XII.

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<sup>1</sup> Post Office engineers were responsible for the development of ERNIE, the electronic random number indicating equipment used for selecting winning premium savings bond numbers.

## XII. 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 (*Cmd. 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 authorities<sup>1</sup> 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 Exchequer<sup>2</sup> 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, 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. 75).

The following broad account of Government finance will be 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.

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

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<sup>1</sup> For an account of public finance in Northern Ireland and its relationship to that of the United Kingdom, see pp. 407–8.

<sup>2</sup> 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.



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. 39).

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 Act of Parliament without limitation to any particular year. This expenditure includes 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. These Consolidated Fund Services represent a permanent charge on the Consolidated Fund.
2. All other Government expenditure, which is authorised from year to year<sup>1</sup> and which includes all expenditure on defence, on the social 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.

<sup>1</sup> The financial year in the United Kingdom runs from 1st April to 31st March.

### **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 Committees, instead of the Speaker, in the Chair). The committee usually discusses public policy relevant to the Estimates, though any Estimate could be examined in detail if members wished and if time allowed (see also p. 40).

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. Inside 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, by the Public Accounts Committee of the House of Commons and by the Select Committee on Estimates.

#### *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 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 as an officer of Parliament. Since 1866 he has had two functions: as Comptroller of the Exchequer he controls entries 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 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 on 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 (PAC). 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 way 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 the committee, which investigates whether full value has been obtained for the sums spent by departments and examines 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. If the recommendations are not acceptable, a reasoned reply is submitted to the committee of the following session, which may either accept the objections or return to the charge in subsequent reports.

#### *Select Committee on Estimates*

This committee was originally set up in 1912 and has been reappointed annually except during the war years. The committee's functions are to examine the Estimates, to report whether there are any economies which could be made without altering the policy implied in the Estimates 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.

### **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 duties<sup>1</sup> 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'.<sup>2</sup>

### 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, or outlay taxes (see p. 404) do not affect the distribution of income; their main purpose has always been the raising of revenue, but by discouraging or encouraging consumption of particular goods they 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.

For some years after the war, budgetary policy was mainly designed to avoid inflation by holding down consumer demand for goods and services so that it would not hamper exports, investment or the defence programme. Between 1953 and 1955, 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

<sup>1</sup> In 1957, the Act was extended to include purchase tax.

<sup>2</sup> 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.

payments position. 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 and an increased rate of repayment of post-war credits, was to give a further stimulus to economic activity and to encourage the utilisation of spare industrial capacity while ensuring that price stability was maintained. The 1960 Budget was designed to consolidate and fortify the progress of the United Kingdom's economy; it was also the occasion for a number of technical reforms in the system of taxation, aimed at minimising tax avoidance.

### 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 1960-61 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,<sup>1</sup> and by the surtax.<sup>2</sup> 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.

Examples of the amounts of income tax paid yearly by people with different incomes and family responsibilities are shown in Table 26.

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 in 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 10 per cent to 12½ per cent from 1st April, 1960.

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

<sup>1</sup> The balance of income remaining after deduction of the personal allowances and reliefs is taxable income. For 1960-61 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.

<sup>2</sup> 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. It is imposed at rates which increase progressively until (for 1960-61) on all income above £15,000 a year, income tax and surtax combined amount to 17s. 9d. in the £.

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 corporations<sup>1</sup> 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.<sup>2</sup>

TABLE 26  
INCOME TAX AND SURTAX PAID BY PERSONS WITH DIFFERENT INCOMES  
AND FAMILY RESPONSIBILITIES IN 1960-61  
(to nearest £)

Income before tax	Single persons		Married couples without children		Married couples with two children		
	Income all earned income	Income all investment income(a)	Income all earned income	Income all investment income(a)	Earned income		
					Two children not over 11	Two children over 11 but not over 16	Two children over 16
200	1(b)	1(b)	—	—	—	—	—
300	12	12	—	—	—	—	—
400	29	52	8(b)	27(b)	—	—	—
500	49	84	24	53	—	—	—
600	74	123	42	84	2	—	—
700	101	162	67	123	15	5	—
800	131	200	93	162	31	21	10
900	162	239	123	200	53	37	27
1,000	192	278	153	239	77	61	46
2,000	493	665	454	627	377	357	338
5,000	1,953	2,340	1,891	2,279	1,769	1,738	1,708
10,000	5,352	5,953	5,276	5,877	5,123	5,085	5,047

Source: *Financial Statement, 1959-60.*

(a) *Age Relief.* Where the taxpayer (or his wife) is 65 or over and his total income does not exceed £800, age relief is given; this reduces the tax payable to that chargeable on the earned income scale. Where the total income exceeds £800, marginal relief is given so that the full tax on the investment income scale is not payable until marginal relief runs out.

(b) A single person aged 65 or over is exempt from tax if his total income does not exceed £275; a married couple is exempt if either of them is aged 65 or over and their joint income does not exceed £440. There is marginal relief where the income slightly exceeds these limits.

<sup>1</sup> Broadly speaking, these are companies, which, though managed and controlled in the United Kingdom, carry on all their trading activities overseas.

<sup>2</sup> 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.



*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 £3,000 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 or outlay taxes are customs and excise duties and are levied on commodities or services. They are called indirect because the importer, 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 (mostly petrol and diesel fuel for road vehicles). There are a number of smaller revenue duties, e.g., on betting, television, matches and sugar. 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 rates varying from 5 per cent to 50 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, fuel, books and newspapers, young children's clothing and footwear, certain non-proprietary drugs and medicines, some household appliances and textiles.

**THE EXCHEQUER ACCOUNTS, 1960-61**

In the Budget of April 1960, total current expenditure for the financial year ending 31st March, 1961, was estimated to reach £5,676 million, while the estimate for total current revenue (after allowing for taxation changes) was £5,980 million, making a surplus of £304 million. These figures exclude self-balancing revenue and expenditure such as Post Office trading. 'Below the line' total payments were estimated at £1,054 million, while total receipts were estimated at £432 million, leaving a deficit, to be borrowed or met from the surplus on current account, of £622 million.

Table 27 shows the Budget estimates for 1960-61 in comparison with the out-turn (Exchequer receipts and issues) for the previous year. The diagram on p. 406 illustrates the pattern of Government estimates of revenue and expenditure on current account in 1960-61.

**CAPITAL PAYMENTS AND RECEIPTS**

In the last few years the main items of capital expenditure dealt with in the part of the Budget statement which lies 'below the line' have been funds to meet capital expenditure by the Post Office; working capital for the National Coal Board; loans to

TABLE 27

UNITED KINGDOM BUDGET: 1959-60 OUT-TURN AND 1960-61 ESTIMATES  
(after 1960-61 Budget changes)

£ million

Above the Line					
Revenue	1959-60 Out- turn	1960-61 Esti- mate	Expenditure	1959-60 Out- turn	1960-61 Esti- mate
Inland Revenue .. ..	3,010	3,273	Interest on Debt .. ..	615	640
Customs and Excise .. ..	2,282	2,409	Sinking Funds .. ..	39	40
Motor duties .. ..	108	113	Northern Ireland .. ..	80	81
			Miscellaneous .. ..	8	8
Total Tax Revenue .. ..	5,400	5,795	Total Consolidated Fund Services .. ..	742	769
Post Office (net receipts) ..	8	4	Supply:*Defence .. ..	1,504	1,608
Broadcast licences .. ..	36	39	Civil (including cost of tax collec- tion) .. ..	2,998	3,209
Sundry loans .. ..	34	32	Provision for deficit of British Trans- port Commission	—	90
Miscellaneous .. ..	152	110	Total Supply .. ..	4,502	4,907
			Total Expenditure .. ..	5,244	5,676
Total Revenue .. ..	5,630	5,980	Surplus .. ..	386	304
	5,630	5,980		5,630	5,980
Below the Line					
Receipts			Payments		
Interest outside Budget ..	243	275	Interest outside Budget ..	243	275
Export Guarantees Acts— Repayments .. ..	6	3	Loans under Export Guar- antees Acts .. ..	38	35
Housing receipts from Votes Local Authorities—Repay- ments .. ..	8	8	Post-war Credits .. ..	64	27
New Towns—Repayments ..	55	56	War Damage .. ..	13	11
Post Office capital repay- ments from Votes .. ..	1	1	Scottish Special Housing ..	4	4
Colonial Development Cor- poration—Repayments ..	10	12	Armed Forces—Housing ..	1	5
Sugar Board—Repayments (net) .. ..	8	1	Loans for New Towns Development .. ..	24	27
Nationalised Industries (other than National Coal Board)—Repayments ..	2	5	Loans for House Purchase	13	40
Other repayments .. ..	47	67	Post Office capital expen- diture .. ..	44	44
	6	4	Loans to Colonial Develop- ment Corporation .. ..	11	5
			Loans to Colonial Govern- ments .. ..	8	29
			Loans to National Coal Board (net) .. ..	112	50
			Loans to other Nationalised Industries .. ..	424	482
			Transport (Railway Finances) Loans .. ..	85	—
			Loans to Iron and Steel Companies .. ..	—	18
			Other Payments .. ..	2	2
Total Receipts .. ..	386	432	Total Payments .. ..	1,086	1,054
Net sum borrowed or met from surplus above the line	700	622		1,086	1,054
	1,086	1,054		1,086	1,054
TOTAL RECEIPTS .. ..	6,016	6,412	TOTAL PAYMENTS .. ..	6,330	6,730

Source: *Financial Statement, 1960-61.*

\* The 1959-60 figure has been adjusted to the basis used for the Defence Budget in 1960-61. The 1960-61 figure also allows for savings of £10 million expected in the defence requirements of the Ministry of Aviation.

# THE UNITED KINGDOM BUDGET 1960-61

(based on April 1960 Budget estimates)

## REVENUE

Receipts per £ from different sources

### TAXES ON INCOME AND CAPITAL 10s. 7d.

#### Taxes on Personal Incomes

Income Tax and Surtax, including tax on dividends and interest (£1,974 million)

6'7

#### Tax Paid by Companies

Income Tax, Profits Tax, etc. (£950 million)

3'2

#### Estate Duty (£239 million)

(Death Duty)

10d

### TAXES ON SPENDING 8s. 10d.

#### Tobacco (£829 million)

2'9

#### Alcohol (£401 million)

1'4

#### Television and Betting (£55 million)

2d

#### Purchase Tax (£535 million)

1'10

#### Oil and Motor Duties

Oil, including petrol (£410 million)  
Motor (£113 million)

1'9

#### Other

Stamp Duties, Import Duties (except on Alcohol, Tobacco, Oil), etc. (£289 million)

1-

### NON-TAX REVENUE 7d.

Miscellaneous, including receipts from servicing of certain loans and broadcast licences (£185 million)

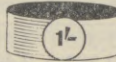
7d

TOTAL £5,980 million **£1. 0. 0.**

## EXPENDITURE

Outlay per £ on different items

### SURPLUS 1s.



Surplus (£304 million): helps to finance capital expenditure

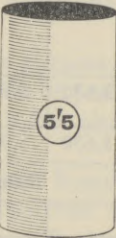
### NATIONAL DEBT 2s. 3d.



#### National Debt

Interest on Government stocks, including National Savings Certificates (£680 million)

### DEFENCE 5s. 5d.



Defence (£1,608 million)

### SOCIAL SERVICES, SUBSIDIES, ETC. 7s. 11d.



Health (£612 million) excluding grants to local authorities

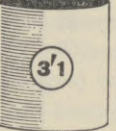


#### Personal Payments

Family Allowances, War Pensions, National Assistance, Government Contribution to Insurance Funds (£586 million) Excludes benefits and pensions paid out of National Insurance Funds



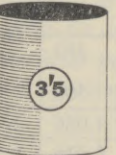
Agricultural Support Subsidies (£244 million)



#### Assistance to Local Services

School Education, Housing, Health, Police, Classified Roads, etc. (£926 million)

### OTHER SERVICES AND PAYMENTS 9s. 5d.



Miscellaneous, including Atomic Energy, Commonwealth and Foreign, Universities, Tax Collection, Trunk Roads, Broadcasting, Deficit of British Transport Commission (£1,020 million)

**£1. 0. 0.** TOTAL (including surplus) £5,980 million



other nationalised industries; loans to local authorities; loans under the Export Guarantees Acts; and loans for house purchase. Capital receipts have come mainly from the repayment of loans to local authorities and nationalised industries. If, on balance, there is a deficit, it is met from the proceeds of Government borrowing or from the surplus, if any, in 'Ordinary' revenue and expenditure, i.e., 'above the line'; while if there were a surplus it would go to reduce the National Debt.

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 stock 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 the requirements 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 two 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 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, 1960, the total National Debt was £27,735 million, of which £2,043 million was repayable in currencies other than sterling, mainly to the United States and Canadian Governments. Of the £25,692 million of internal debt, about £5,803 million was short-term debt, mainly in the form of 91-day bills on the Treasury, while the long-term loans included a variety of stocks, bonds, loans, and certificates carrying fixed rates of interest (ranging from 2½ to 5½ 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, the Post Office, 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' Revenue, 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, cinemas (entertainments 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 1960-61 (year ending 31st March), total revenues were forecast at £117.47 million and expenditure at £111.4 million. After allowing for a small Budget surplus of £55,580, the Imperial Contribution was provisionally estimated at £6 million.

The Public Debt of Northern Ireland, totalling £56 million on 31st March, 1960, 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 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, 1960, a sum of approximately £81 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<sup>1</sup>—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.

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<sup>1</sup> On 25th August, 1960, the Bank Rate stood at 6 per cent.

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 reached in July 1958 with the London clearing banks and Scottish banks, 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 April 1960, when each of the banks was called upon to deposit, by 15th June, 1960, a sum equivalent to 1 per cent ( $\frac{1}{2}$  per cent for Scottish banks) of its total deposits. A further call of 1 per cent ( $\frac{1}{2}$  per cent for Scottish banks) was made on 23rd June, 1960.

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 banking members of the British Bankers' Association include 11 London clearing banks,<sup>1</sup> 5 banks in Scotland and 3 in Northern Ireland, and control nearly 13,000 branches and have total assets of over £9,800 million.
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 1959 through the London and Provincial Clearing Houses was £657 million; and many cheques do not, for various reasons, pass through clearing houses.
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 about three-fifths 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

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<sup>1</sup> Three of these banks are members of the London clearing house but have headquarters outside London (at Liverpool and Manchester).



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 April 1960 was back to the 1938 level of 43 per cent.<sup>1</sup> This increase 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 offices<sup>2</sup>; 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, 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, with interest payable only on encashment, but free of income tax. From this war-time drive originated the present National Savings Movement devoted to the encouragement of the widespread investment of savings in Trustee Savings Banks and the Post Office Savings Bank and in National Savings Certificates and Defence Bonds. The policy of the movement is determined by the National Savings Committee for England and Wales and similar committees for Scotland and Northern Ireland.<sup>3</sup> 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. In 1956, the Govern-

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<sup>1</sup> About 31 per cent of the bank's deposits at this time were covered by cash and other highly liquid securities, while 20 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.

<sup>2</sup> Twenty-nine overseas banks are members of the British Bankers' Association.

<sup>3</sup> 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.

ment introduced an additional type of savings security—Premium Savings Bonds, issued in £1 units—which, after an initial period of six months and thereafter monthly, give investors a chance to win prizes ranging from £25 to £1,000 instead of receiving interest. With effect from November 1960, the maximum prize was increased to £5,000. By 31st August, 1960, about £279 million had been invested in this form of savings.

Trustee Savings Banks are managed by boards of honorary trustees and managers, and most 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 £2,000 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. In November 1959, there were about 1,330 Trustee Offices controlled by 83 independent banks.

The Post Office Savings Bank is the largest organisation of its kind in the world. It has over 22 million active accounts; in December 1959, total balances, which carry a Government guarantee, amounted to £1,681 million, about £75 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.

There is a limit of £5,000 on the total balance which may be held by one individual in the ordinary departments of Trustee Savings Banks and 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 May 1960, national savings had reached a record total of over £7,000 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.

### **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. This increasing 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. As at 31st March, 1960, the capital called and paid up was 2 per cent (£500,000); the Bank of England paid up to £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, e.g., 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, fully paid up. In addition, the corporation can borrow up to a further £30 million in the form of loan capital, and can thus have a maximum of £45 million available. Although the Bank of England has a token participation, the principal shareholders are the London clearing banks and the Scottish banks in proportion to their size; the loan capital is provided by all the shareholders in the same ratio as their shareholdings.

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 Birmingham, Leeds, Leicester, Manchester, Cardiff and Edinburgh.

#### *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 1960, its commitments amounted to the sterling equivalent of approximately £16.2 million.

#### *Agricultural Mortgage Corporation Limited*

The primary function of this corporation, which was 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 £36 million was outstanding in March 1960.

#### *The Scottish Agricultural Securities Corporation Limited*

This corporation was established in 1933 under the provisions of the Agricultural Credits (Scotland) Act, 1929. Its share capital is subscribed by three Scottish banks. It fulfils broadly similar functions in Scotland to those of the Agricultural Mortgage Corporation in England.

### **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 10,000 securities are quoted on the London Stock Exchange; at the end of 1959, these had a total market value of £37,670 million.

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.

### **Controls over Borrowing**

Since 1932, there has been some degree of control over capital issues and other forms of large-scale borrowing in the United Kingdom. The 1932 controls, and such modifications as were made up to 1939, were without a statutory basis but resulted from public requests by the Chancellor which the various markets observed. During the war, a Capital Issues Committee was given the task of advising the Treasury on the administration of the statutory control of capital issues (and analogous transactions).

The end of the war in 1945 saw the retention of the Capital Issues Committee with its primary function unchanged; provision for capital issues control on a more permanent basis was made the following year with the passing of the Borrowing (Control and Guarantees) Act, 1946, which empowered the Treasury to make orders regulating borrowing and the raising of money by the issue of shares.

In February 1959, controls over capital issues were considerably relaxed by a general consent given by the Treasury, under powers conferred by the Control of Borrowing Order, 1958. With the exception of redeemable bonus issues, it is no longer necessary for any person or company resident in the United Kingdom to apply individually for Treasury consent before borrowing money in Great Britain or before issuing shares or other securities. Issues exceeding £50,000 by overseas borrowers are still subject to control by the Treasury and the timing of all issues of £1 million or more must be approved by the Bank of England.

### **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. Fixed trusts are composed of investments which are determined in advance and which may not be changed. In flexible trusts, on the other hand, the managers may widen the field of investment and change the investments as they judge desirable.

Although the first unit trust appeared in London in 1868, it was not until about 1931 that unit trusts became important. The Prevention of Fraud (Investments) Act, 1939, amended by the Companies Act, 1947, and consolidated in the Prevention of Fraud (Investments) Act, 1958, brought unit trusts under the control of the Board of Trade. During the last few years unit trusts have grown rapidly. By the end of 1959, the total funds invested in unit trusts amounted to about £200 million, having doubled in one year.

### The Insurance Market

Although a certain amount of insurance is provided by Provident Societies, most insurance services in the United Kingdom are in the hands of either mutual or joint stock companies or associations of underwriters (of which the most important is Lloyd's).

Table 28 shows the distribution of business in terms of gross premium income in 1958, the latest year for which figures are available.

TABLE 28  
INSURANCE COMPANIES—GROSS PREMIUM INCOME 1958

	<i>£ million</i>			
	Life (a)	Marine	Other general business	Total
Companies incorporated in the U.K. . . . .	448	77	763	1,288
Lloyd's Underwriters . . . .	—	120	172	292
TOTAL . . . .	448	197	935	1,580

Source: Board of Trade.

(a) Excluding 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 provident societies (called collecting societies) and companies, the latter accounting for a gross premium income of £146 million out of a total of £177 million in 1958.

### Insurance Companies

There are about 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 1958 the total insurance funds of the British insurance companies amounted to £4,821 million and of this some £3,900 million were 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. 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 for the collection and diffusion of shipping intelligence).

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. In 1871, Lloyd's was incorporated by Act of Parliament.

The conduct of insurance business and the affairs of the Society of Lloyd's in its corporate capacity are administered by the Committee of Lloyd's.

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.

The annual premium income of Lloyd's underwriters after deduction of brokerages, commissions, returns and reinsurance premiums is about £233 million, of which some £96 million is in respect of marine and aviation insurance.

### *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 Building Societies Act, 1960, provides for the regulation of the type of advances a building society may make, the investment of surplus funds, and the content of advertisements used to attract funds from the public. 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 are not dealt with on the Stock Exchange but may be withdrawn in cash if notice is given. 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 1959, 732 societies were in operation, with total assets of £2,902 million. The amount advanced on mortgage in 1959 was £518 million.

Under the House Purchase and Housing Act, 1959, the Treasury was 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.

## XIII. TRADE

Although relatively small in area and accounting for only 2 per cent of the world's population, the United Kingdom conducts 10 per cent of international trade. It has acquired this position as a consequence of several factors. It was one of the earliest 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.

This chapter outlines some of the main features of Britain's overseas trade and payments and of its internal trade and includes only a brief treatment of its trade policy and commercial relations.

### OVERSEAS 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 1959 it had fallen to 17 per cent.

For over a century, Britain's internal economy has been vitally dependent on international trade. 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 represent about 30 per cent of the output of manufacturing industry; exports of goods and services together absorb about a fifth of the gross national product.

In 1959, Britain was the world's second largest trading nation. It is a major supplier of machinery, ships, road and railway vehicles, aircraft, metal manufactures, 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 rose in value from £919 million in 1938 to £1,802 million in 1947 and £3,990 million in 1959. The rise in value of exports was from £471 million in 1938 to £1,142 million in 1947 and £3,330 million in 1959.

Calculations of changes in trade volume (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 1959 the volume of imports was some 10 per cent greater than the 1938 figure, while the volume of exports was about 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 29.

TABLE 29  
IMPORTS AND EXPORTS: ANNUAL FIGURES

	1938(a)	1948	1951	1954	1957	1958	1959
<i>Value (£ million)</i>							
Total imports c.i.f.(b) ..	919	2,077	3,891	3,358	4,024	3,746	3,990
Exports of UK goods, f.o.b.(c) .. ..	471	1,579	2,564	2,646	3,291	3,172	3,330
Re-exports f.o.b.(c) ..	61	61	125	98	130	141	130
<i>Volume Index Nos.</i>							
Total imports, 1954=100 .. ..	n.a.	n.a.	100	100	114	114	122
Exports of UK goods, 1954=100 .. ..	n.a.	n.a.	100	100	116	111	116
<i>Price Index Nos.</i>							
Imports, 1954=100 .. ..	n.a.	n.a.	113	100	107	99	98
Exports, 1954=100 .. ..	n.a.	n.a.	100	100	111	110	109
<i>Terms of Trade(d) .. ..</i>							
1954=100 .. ..	n.a.	n.a.	113	100	96	90	90

Sources: *Accounts Relating to Trade and Navigation of the United Kingdom*, and Statistics Division, Board of Trade.

(a) Gold ore, gold scrap and sweepings, partly marked gold and gold leaf ore are excluded for all years. Silver bullion and all coin (other than of gold) not of legal tender in the United Kingdom are excluded from 1938 figures.

(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 national economy is indicated by the rise in the proportion of total national income derived from export earnings—from 11 per cent in 1938 to 17 per cent in 1948 and 19 per cent in 1959. Over the same period there was little change in the proportion of expenditure on imports to gross national expenditure; it was about 16 per cent in 1938, 17 per cent in 1948 and 17 per cent in 1959.

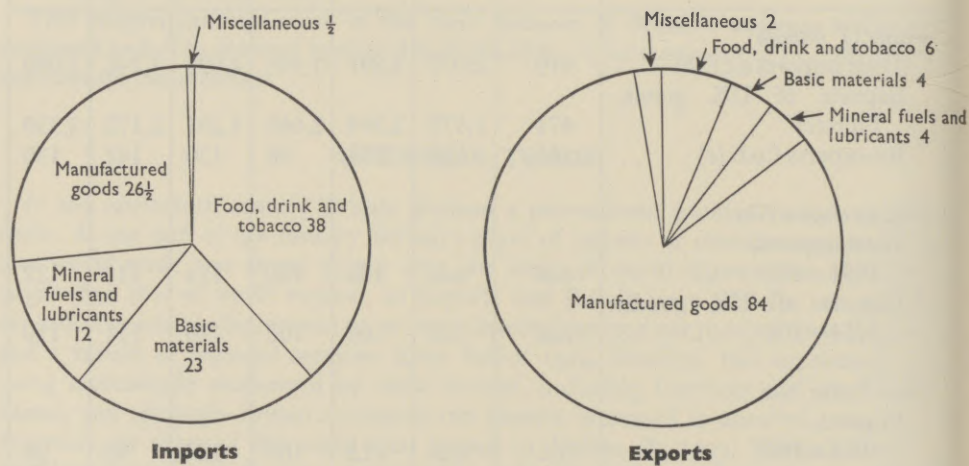
### Commodity Composition

The diagrams below give an analysis of the commodity composition of imports and exports in 1959.

As domestic output of agriculture has expanded by about 70 per cent compared with pre-war, Britain relies relatively less than before the war on food imports. Industrial output has increased by some 80 per cent and a relatively larger supply of imported

### COMMODITY COMPOSITION OF IMPORTS AND EXPORTS IN 1959

(Percentages of total values)



raw materials is needed. Whereas 47 per cent by value of total imports in 1938 consisted of food, beverages and tobacco, the proportion in 1948 was only 42 per cent, and in 1959, 38 per cent. On the other hand, the proportion for basic materials rose from 26 per cent in 1938 to 31 per cent in 1948, but was reduced to 23 per cent in 1959. Imports of manufactures in 1959 were over 26 per cent of total imports, compared with 31 per cent in 1938. Imports of fuels rose from 5 per cent of the total in 1938 to 12 per cent in 1959, due to increased consumption of petroleum products.

Compared with before the war, exports of engineering products have more than doubled in importance relative to United Kingdom exports as a whole and in 1959 accounted for 44.1 per cent of the total. Within this group the increase in the relative importance of exports of motor vehicles has been particularly marked. The share of chemicals also shows an increase, from 6.3 per cent in 1935-38 to 8.8 per cent in 1959. On the other hand, the share of textiles declined from 24 per cent in 1935-38 to 8.7 per cent in 1959. In the fuels group, exports of petroleum have partially replaced those of coal. Further details of the percentage composition of United Kingdom exports are set out in Table 30.

TABLE 30  
PERCENTAGE COMPOSITION BY VALUE OF UNITED KINGDOM EXPORTS

*Per cent*

Commodity	Average 1935-38	1948	1954	1958	1959
Engineering products .. ..	20.1	35.9	37.9	43.6	44.1
Metals .. .. .	13.4	11.9	12.8	13.6	13.5
Textiles .. .. .	24.0	19.3	13.5	9.3	8.7
Chemicals .. .. .	6.3	6.8	7.7	8.2	8.8
Other manufactures .. ..	11.9	12.3	10.9	10.6	10.5
Coal, coke and briquettes ..	8.0	2.8	2.5	1.0	0.7
Petroleum .. .. .	1.0	0.6	3.2	3.1	2.9
Food, beverages and tobacco ..	7.4	5.9	5.8	5.9	5.7
Other products .. .. .	7.9	4.6	5.7	4.7	5.0
TOTALS .. .. .	100	100	100	100	100

Source: Statistics Division, Board of Trade.

In 1959, the Commonwealth provided a market for rather more 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 Western Germany) took 14 per cent, the United States 11 per cent, the Middle East (including members of the sterling area) 6 per cent and Latin America 5 per cent. The other members of the European Free Trade Association (see p. 425) accounted for slightly over 10 per cent of United Kingdom exports.

Table 31 shows Britain's principal markets and principal supplier countries in 1959, and the percentage change compared with 1958.

TABLE 31  
UNITED KINGDOM EXPORTS AND IMPORTS IN 1959 BY MAIN COUNTRIES OF DESTINATION  
AND ORIGIN

Total UK Exports to:	Value (£ million)	% change on 1958	UK Imports from:	Value (£ million)	% change on 1958
United States ..	360	+33	United States ..	371	+ 6
Australia ..	224	- 5	Canada .. ..	312	+ 1
Canada .. ..	207	+10	Australia ..	223	+12
India .. .. .	171	+ 7	New Zealand ..	183	+14
South Africa ..	149	-20	Netherlands ..	160	+ 1
Western Germany	142	+12	Western Germany	144	+ 6
Netherlands ..	113	+16	India .. .. .	143	+ 2
Sweden .. ..	112	+ 8	Denmark .. ..	134	+16

Source: *Board of Trade Journal and Accounts Relating to Trade and Navigation of the United Kingdom.*



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. 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. About one-quarter 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, though, over the past 45 years, its importance relative to total United Kingdom export trade has declined. The greater part of United Kingdom re-export trade has always been in raw materials and foodstuffs, e.g., wool, rubber, tea, non-ferrous metals and fur-skins. Recently, a considerable re-export trade has developed in machinery, notably aero-engines, which have undergone repair and maintenance in the United Kingdom. A large part of the re-export trade is in commodities imported from Commonwealth countries and re-exported to countries in Europe, particularly traditional re-exports such as tea and wool.

In 1959, the total value of re-exports was £130 million 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 normally imports more goods than it exports; the gap is, as a rule, more than covered by net earnings from invisible transactions. Table 32 provides statistics of the receipts, payments and net earnings of invisible transactions, divided for statistical purposes into six main groups: Government; shipping; interest, profits and dividends; travel; migrants' funds; and other items. Some of these figures are precise (e.g., for Government transactions), others are estimates.

Under the heading of Government current transactions, the main items on the debit side are military expenditure overseas and grants to the Colonies and for relief and other similar purposes. Shipping receipts come mostly from liners, and include earnings 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.

About three-fifths of Britain's receipts under the heading interest, profits and dividends come from investments in the sterling area; the returns from these investments are closely linked to movements in the prices of primary commodities. On the debit side, major items include interest paid on sterling held by overseas countries 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. 423). The largest component under 'other items (net)' is the overseas transactions of United Kingdom oil companies (this does not include United Kingdom oil imports and exports, oil for the armed forces overseas and capital items, which come under other sections of the accounts). Other



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 in seven overseas countries and agencies and representatives in several others. 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 (OEEC) and the European Payments Union (now 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. Towards the end of 1959 and early in 1960, most of those still remaining were lifted. These measures followed a series of relaxations, mainly affecting goods from the dollar area, which had been made over the two previous years. There is a 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. 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 United Kingdom 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. Negotiating machinery for this purpose was set up by OEEC and, in October 1957, OEEC made a unanimous declaration of intent to form such an area. By November 1958, however, no agreement had been reached and the negotiations were suspended.

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 will be reduced by stages over a ten-year period. The first reduction, one of 20 per cent, took effect from 1st July, 1960.

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. 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.

### **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.

In the immediate post-war years, nearly all the principal imported foods and raw materials and some other goods were bought wholly or mainly on Government account, and the Government was also the sole purchaser of nearly all domestically produced food and certain raw materials such as flax and timber. In later years, and particularly since 1951, private trading has been restored to each commodity. Since January 1957, overseas trading undertaken directly by the Government has been confined to jute goods. The purpose of this control is to assist the United Kingdom jute industry, which is concentrated in Dundee and still forms the mainstay of employment in that city.

### 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. The legal basis was, at first, the Defence (Finance) Regulations, issued under the Emergency Powers (Defence) Acts, but in 1947 most of these temporary war-time powers were embodied in permanent legislation in the Exchange Control Act, 1947.

At present, exchange control is confined mainly to transactions between residents of the sterling area and residents outside it, and in the past few years, and especially since 1954, these controls have been greatly relaxed. 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, these 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 currency and notes that United Kingdom travellers might take abroad were in force from the end of the war until

November 1959, when new arrangements were introduced. The position in 1960 is as follows: there is 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 in any one year to each traveller for purposes of travel outside the scheduled territories (sterling area); if an amount exceeding £250 is required, this 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. This policy is carried out by means of Open General Licences, which from time to time are granted by the Board of Trade by virtue of powers vested in them under the 1939 Act.

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 p. 426), United Kingdom exports are not, except in a very minor way, subject to any Government control or direction. Goods are freely exportable to all destinations unless there is a specific ban on their export without licence. 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, but, in a few cases, Open General Licences are issued. In other cases, bulk licences are issued to permit exports of specified quantities of controlled goods within a given period.

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 exporters<sup>1</sup> 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 the difficulties he encounters in trade with the country in question, particularly those arising out of governmental regulations. These officers indicate potential demand for United Kingdom products, advise about methods of trading with particular areas, and seek out and pass on all 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.

### 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 thirty years, and the department now underwrites nearly £700 million worth of insurance a year; this sum represents about 18 per cent of the total United Kingdom export trade. The department is obliged to conduct its business on a self-supporting

<sup>1</sup> 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. 257.

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. *Short-term 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 maximum 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. *Medium-term policies* which cover capital and other goods sold on credit terms exceeding three years. Specific policies are negotiated for each individual contract.

In the case of all the department's policies, the exporter or merchant is 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. 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.

## 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.

Over 60 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). A list of the more important ones appears regularly in the fairs section of the *Board of Trade Journal*. 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 products of more than 360 United Kingdom firms were exhibited at the 1960 Milan Fair; the United Kingdom is always well represented at the Hanover and Posnan Fairs. In addition to these international events at which British goods are shown, 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 and in Lisbon in 1959; and in 1960, it was responsible for the comprehensive all-British exhibition in New York. At the Brussels Universal and International Exhibition, held in 1958, the FBI organised a highly successful British Industries Pavilion. United Kingdom manufacturers have been prominent at the many important specialised international fairs which are held in North America and Europe.

As well as collecting and distributing information on trade fairs, the Board of Trade aids British industry by installing trade inquiry stands at certain major overseas fairs. These are usually combined with displays designed to show one or more aspects of British industrial production. In addition, the Board of Trade sometimes collaborates with trade associations in organising joint displays of the products of a particular industry at overseas specialised fairs.

### **Dollar Exports Council**

In December 1951, the Dollar Exports Council replaced the Dollar Exports Board, which had been established in June 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 whose purpose is to give all possible service to exporters from the United Kingdom to Canada and to the United States.

### **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. 408–415). 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, which was closed during the war, was reopened for forward dealings in December 1951 and for arbitrage dealings in currencies of members of the European Payments Union in May 1953. The 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 market consists of authorised banks and brokers 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 world's leading centre for dealings in gold.

Authorised dealers in gold are now free to deal with residents outside the sterling area against payment in any foreign currency, or in sterling held outside the sterling area, but residents of the sterling area have access to the market only as sellers, except where permission is given for the purchase of gold for essential industrial purposes and for the jewellery trade.

### **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. Within the sterling area the United Kingdom imposes virtually no restrictions on payments, whether in respect of current or of capital transactions.

All the Commonwealth countries (except Canada), together with Burma, Iceland, the Irish Republic, Jordan, Libya and the British protected states in the Persian Gulf, 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. 422). On long-term capital account, the main groups of items are intergovernmental loans (including amortisation) and other identified net long-term investment abroad by 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 in Britain's credit or debit balance in the European Payments Union (which, since 30th December, 1958, has been superseded by the European Monetary Agreement); and changes in the central reserves of gold and convertible currencies.

Table 33 gives details of the United Kingdom's balance of payments in 1957, 1958 and 1959.

#### Balance of Payments in 1959

For 1959 as a whole, the United Kingdom had a surplus on current account of £145 million. This was about £200 million less than in 1958, which was an exceptionally favourable year. As is usual, there was a deficit on visible trade which was more than balanced by invisible earnings. During 1959, net long-term capital investment was very high and, at £548 million, was about £290 million more than in 1958. By far the largest item was the additional subscription of £232 million to the International Monetary Fund. A further £89 million was used in the advance repayments of the 1957 loan from the Export-Import Bank; and £29 million (net) in other governmental loan operations. The reserves of gold and convertible currencies fell by a total of £119 million and the sterling holdings of countries in the rest of the sterling area rose by £184 million, reflecting the rise in their export earnings as a result of the recovery in world trade.

#### Trends in Earlier Years

The main balance of payments problem for Britain has been to earn enough from exports, visible and invisible, (1) to pay for half Britain's food and nearly all the raw

TABLE 33  
UNITED KINGDOM BALANCE OF PAYMENTS

£ million

	1957	1958	1959 (provi- sional)	1958		1959	
				Jan.- June	July- Dec.	Jan.- June	July- Dec. (prov.)
<i>Current Account</i>							
Visible Trade (a)							
Imports (f.o.b.) .. ..	3,569	3,330	3,605	1,628	1,702	1,749	1,856
Exports and re-exports (f.o.b.) .. ..	3,538	3,428	3,547	1,721	1,707	1,749	1,798
Balance .. ..	- 31	+ 98	- 58	+ 93	+ 5	—	- 58
Invisibles:							
Balance .. ..	+ 265	+ 251	+ 203	+ 133	+ 118	+ 115	+ 88
CURRENT BALANCE .. ..	+ 234	+ 349	+ 145	+ 226	+ 123	+ 115	+ 30
<i>Long-Term Capital Account (b)</i>							
Intergovernmental .. ..	+ 72	- 45	- 118	- 14	- 31	+ 36	- 154
UK subscriptions to IMF and European Fund .. ..			- 236			- 232	- 4
Other long-term capital ..	- 269	- 214	- 194	- 102	- 112	- 82	- 112
BALANCE .. ..	- 197	- 259	- 548	- 116	- 143	- 278	- 270
<i>Monetary Movements (b)</i>							
Overseas sterling holdings ..	- 173	+ 58	+ 227	- 13	+ 71	+ 99	+ 128
Gold and convertible currency reserves .. ..	- 13	- 284	+ 119	- 287	+ 3	- 37	+ 156
Other items .. ..	- 11	+ 13	+ 17	+ 37	- 24	+ 37	- 20
BALANCE .. ..	- 197	- 213	+ 363	- 263	+ 50	+ 99	+ 264
BALANCING ITEM (c) .. ..	+ 160	+ 123	+ 40	+ 153	- 30	+ 64	- 24

Source: *United Kingdom Balance of Payments, 1957 to 1959, Cmnd. 977.*

(a) The values of exports and imports shown in this table differ from those in the Trade and Navigation Accounts used in Table 29 because of differences of *coverage*, i.e. landings by British Whale Fisheries, trade with the Channel Islands, and exports to Services canteens (NAAFI) abroad are excluded from this table, but imports and exports of diamonds and all second-hand ships are included; and *valuation and timing*, i.e. broadly speaking, figures in this table represent earnings and expenditure, whereas the Trade Accounts record departures and arrivals. Charges for insurance and freight are, in general, here excluded from the value of imports. Since January 1959, changes in the coverage of the Trade and Navigation accounts have made some of the coverage adjustments unnecessary.

(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.



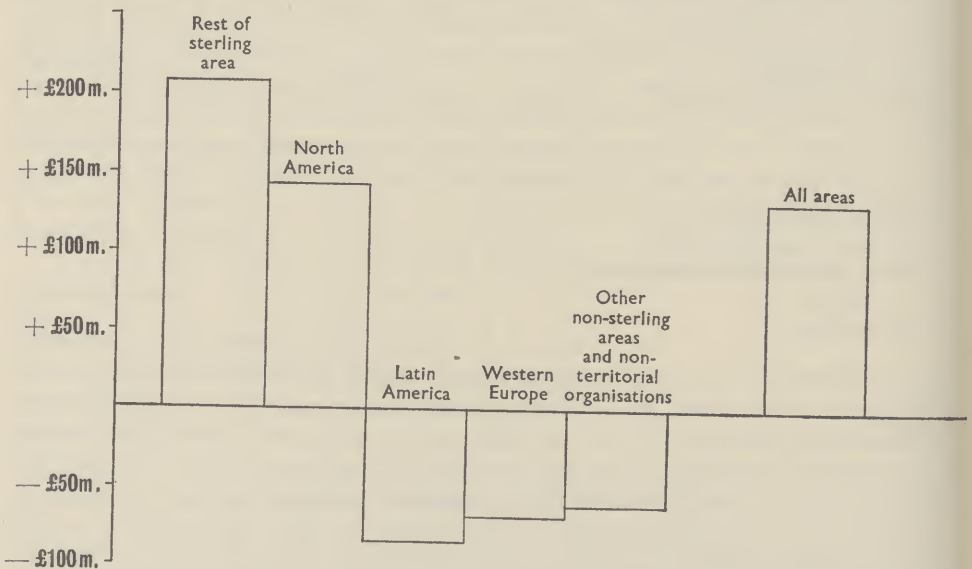
materials used in its factories; (2) to build up the gold and foreign exchange reserves needed in a world of multilateral trading and convertible currencies, and to meet obligations overseas, including foreign debt service; and (3) to meet obligations voluntarily accepted in respect of economic development in Commonwealth countries and elsewhere.<sup>1</sup>

Between 1945 and 1951, the balance of payments on current account fluctuated widely owing to several factors, including changes in the terms of trade, the devaluation of the pound sterling in 1949, and the trade boom following the Korean War with its aftermath of high import prices. From 1952 onwards, there have been surpluses in each year except 1955, with an average annual surplus from 1956 to 1959 of £230 million.

### Regional Balance of Payments

There is normally a triangular pattern of trade between the United Kingdom, the rest of the sterling area and the rest of the world. While the United Kingdom is usually in current deficit with the non-sterling world, the rest of the sterling area is usually in current surplus; on the other hand, within the sterling area, the position is reversed and the United Kingdom normally has a current surplus with other sterling area countries.

#### BALANCE OF PAYMENTS ON CURRENT ACCOUNT BY REGIONS 1959



In the early post-war years, the principal component in the United Kingdom's current deficit with the non-sterling world was the deficit with the dollar area. However, since 1951, this deficit has been considerably reduced—from an average of £307 million in 1946–51 to an average of £65 million in 1952–58; and in 1959, there was a current account surplus with North America of £143 million.

<sup>1</sup> In addition, since the war, the United Kingdom Government has had to meet heavy overseas military expenditure. In 1959, for example, this amounted to £174 million.

## Reserves of Gold and Convertible Currencies

The reserves of gold and convertible currencies at the end of each year from 1945 to 1959 are shown in Table 34. At the end of August 1960, these reserves amounted to £1,097 million (\$3,072 million).

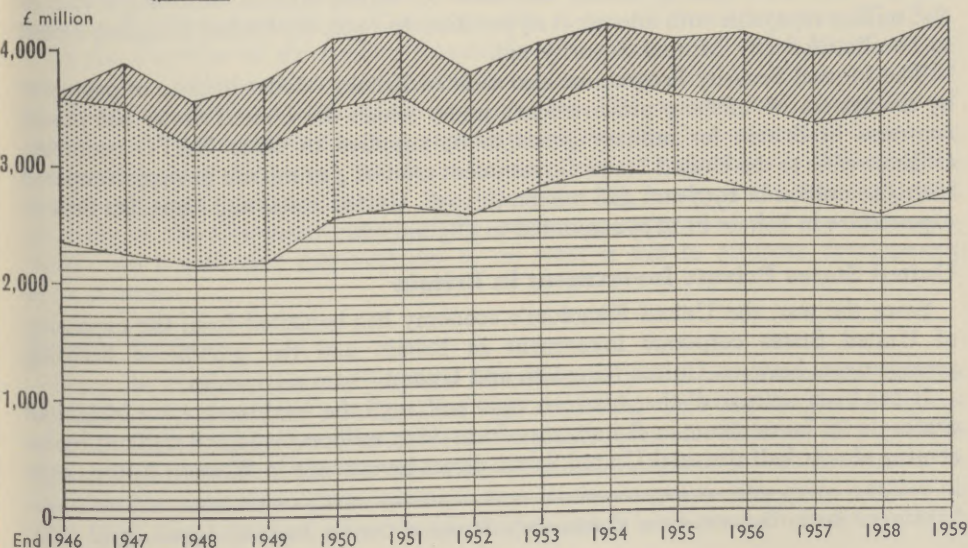
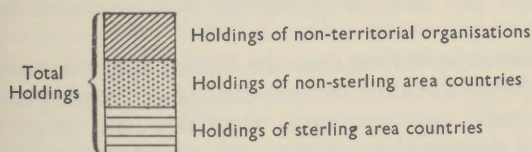
TABLE 34  
RESERVES OF GOLD AND CONVERTIBLE CURRENCIES  
(at end-December)

Year	£ million	Year	£ million	Year	£ million
1945	610	1950	1,178	1955	757
1946	664	1951	834	1956	799
1947	512	1952	659	1957	812
1948	457	1953	899	1958	1,096
1949	603	1954	986	1959	977

Sources: *Annual Abstract of Statistics* and *Monthly Digest of Statistics*.

A 'second line' of reserves is provided by the United Kingdom's drawing rights in the International Monetary Fund (IMF), to which Britain is the second largest contributor. In May 1959, the United Kingdom paid £58 million in gold to the IMF as part of the 50 per cent increase in its quota, which raised the account on which the United Kingdom has drawing rights by £232 million.

## OVERSEAS STERLING HOLDINGS 1946-59



The diagram on p. 435 shows trends in the level of overseas sterling holdings of sterling area countries, non-sterling countries and non-territorial organisations, from 1946 to 1959.

### **External Financial Aid received 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 amounting to \$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 payment in 50 annual instalments, starting on 31st December, 1951, with interest at the rate of 2 per cent a year. The original loan agreements included provision for waiver of interest under certain circumstances. In March 1957, these were replaced by new arrangements whereby the United Kingdom Government could defer up to seven of the annuity payments of both capital and interest if it judged this postponement necessary in view of the current and prospective conditions of international exchange and the level of the reserves of gold and convertible currencies.

Between 1948 and 1951, Britain received in all \$2,700 million in Marshall Aid from the United States under the European Recovery Programme. Of this, \$1,700 million was grant aid, some \$620 million was 'conditional' aid (i.e. dollar aid on condition that Britain provided corresponding sterling aid to other European countries) and \$337 million was a loan to be repaid with interest at 2½ per cent. By far the greater part of the Marshall Aid allocated to Britain was used to buy essential food and raw materials; but technical assistance and help in promoting intra-European trade co-operation were also provided.

After 1951, the financial aid received by Britain from the United States was mostly under the provisions of the United States Mutual Defence Assistance Programme and Mutual Security Programme. Between 1951 and 1958, when this form of aid was terminated, net receipts by Britain amounted to \$1,184 million, including a loan of \$48 million repayable with interest at 2½ per cent. In 1956, the United Kingdom ceased to be allocated any Mutual Security aid.

The Mutual Security Programme also assisted Britain's dollar balance of payments by the system of 'offshore procurement', under which the United States has placed contracts in Britain for military goods to be supplied to other NATO countries. Offshore sales to the United States Government totalled £12 million in 1959, compared with £40 million in 1957 and £18 million in 1958. United States and Canadian Forces' expenditure in Britain in 1959 amounted to £65 million.

### **United States Private Investment in Britain**

Since the war, the United Kingdom's economy has benefited from the expansion of United States corporate investment in Britain and the growth of licensing arrangements between United Kingdom and United States companies.

It has been estimated<sup>1</sup> that between 1950 and 1958 the total book value of United States direct investments in Britain rose from \$847 million to \$2,058 million, representing almost half the total United States direct investment in Western Europe over

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<sup>1</sup> United States Department of Commerce's *Survey of Current Business*, August 1959.



the period. The 1958 total included \$400 million in petroleum refining and distribution and \$1,313 million in manufacturing industry (chiefly motor vehicles and equipment, machinery, electrical appliances, chemicals, metals and food products). Much of this investment is in expanding industries such as agricultural tractors, earth-moving equipment and office machinery. This investment by United States industrial firms has enabled the British economy to acquire some new techniques and to make considerable savings in imports and at the same time to expand its exports of several important products.

North American investors are also allowed to repatriate the proceeds of the sale of these 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. Portfolio investment (e.g., by purchase, on a stock exchange, of securities in United Kingdom companies) by United States citizens has also increased markedly since 1957. As a result of the increasing interest in the United States in direct investment in the United Kingdom, a British Industrial Development Office has been established in New York to provide potential investors with advice and information about manufacturing conditions in the United Kingdom.

### UNITED KINGDOM AID AND 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. 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.

In recent years, United Kingdom finance for overseas development has been made available through private sources, public funds and intergovernmental organisations. The greater part of such finance goes to Commonwealth countries (including Colonial territories) and consists of private funds. There has also been substantial direct or indirect governmental assistance to Colonial territories and to under-developed countries inside and outside the Commonwealth.

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 Meetings. At the Commonwealth Conference in Montreal in September 1958, special emphasis was placed on the needs of the less developed countries of the Commonwealth and the conference recognised that the Commonwealth has a collective responsibility to do what it can to promote development in those areas.

### Private Finance

Since the United Kingdom imposes no exchange control on current transactions or capital payments with other sterling area countries, there are no precise figures of total United Kingdom finance made available overseas. Balance of payments figures show, however, that the net level of United Kingdom private investment in all areas has been some £200 million a year in recent years. The gross outflow of new funds has, however, been much larger and is estimated to have averaged

£300 million yearly since 1953. It is estimated that at least £100 million a year of this private investment goes to under-developed countries.

This 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.

#### *London Market Borrowing*

Because of the heavy demand for such funds, borrowing by overseas Governments on the London capital market since the war has normally been confined to issues by Commonwealth and Colonial Governments. New capital issues for Commonwealth countries have averaged about £55 million a year since 1954.

#### *Other Private Investment*

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. In 1954-59, capital issues destined for sterling Commonwealth countries averaged over £50 million a year. Finance is also made available by the Commonwealth Development Finance Company (see p. 413), which, by March 1960, had entered into commitments totalling £16.2 million in eleven Commonwealth countries for a wide variety of projects.

### **Finance from Public Funds**

Non-military loans and grants to the under-developed countries from the United Kingdom Exchequer have been increasing: figures are given in Table 35.

TABLE 35  
UNITED KINGDOM GOVERNMENT ASSISTANCE  
1951-52 to 1959-60

*£ million*

Year	Total	Year	Total	Year	Total
1951-52 .. ..	61	1954-55 .. ..	77	1957-58 .. ..	81
1952-53 .. ..	49	1955-56 .. ..	83	1958-59 .. ..	110
1953-54 .. ..	52	1956-57 .. ..	76	1959-60 (Estimate)	138

Source: *Assistance from the United Kingdom for Overseas Development* (Cmnd. 974).

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 annual division of assistance between these various forms is shown for the three latest years in Table 36. The amounts included represent entirely assistance to less developed countries, with the exception of sums of £3.7 million in 1957-58, £2.2 million in 1958-59 and £3 million in 1959-60 for disbursements to the Union of South Africa under International Bank loans for which part of the United Kingdom subscription was used.

TABLE 36  
MAKE-UP OF UNITED KINGDOM GOVERNMENT ASSISTANCE\*

£ million

	1957-58	1958-59	1959-60 (Estimate)
<i>Bilateral Assistance</i>			
Grants .. .. .	35.0	33.3	39.6
Loans .. .. .	10.9	36.7	60.4
Technical assistance .. .. .	4.1	4.4	5.2
Total .. .. .	50.0	74.4	105.2
Emergency assistance .. .. .	13.3	11.7	12.5
Total bilateral assistance .. .. .	63.3	86.1	117.7
<i>Multilateral Assistance</i>			
Disbursements from the United Kingdom subscription to IBRD .. .. .	16.0	21.1	18.0
UN Expanded Programme of Technical Assistance (and UN Special Fund after 1959) .. .. .	0.7	0.8	1.2
Subscriptions to UN Agencies .. .. .	1.4	1.5	1.5
Total multilateral assistance .. .. .	18.1	23.4	20.7
Total economic assistance .. .. .	81.4	109.5	138.4

Source: *Cmd.* 974.

\* These categories and the sums involved differ from the presentation given in the White Papers on the United Kingdom balance of payments. These differences arise (a) because the balance of payments' estimates do not make a precise distinction between economic assistance and other types of Government current expenditure, (b) because of timing (disbursements from Exchequer funds are on a financial year basis), and (c) because some types of transactions included as Exchequer aid do not enter into the balance of payments.

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*

The Government has authority under Sections 2 and 3 of the Export Guarantees Act, 1949, as amended by Section 2 of the Export Guarantees Act, 1957, for the giving of economic assistance to countries outside the United Kingdom. Securities issued by the borrowing country are acquired by the Export Credits Guarantee Department (ECGD), and their purchase price used to facilitate payment for United Kingdom exports.

United Kingdom Government loans are made through these powers to overseas Governments. The loans bear interest at rates related to the notional rates for United Kingdom Government borrowing.



From 1949 to 1958, loans have been effected through ECGD to Yugoslavia (£17 million), India (£43.5 million), Iran (£11 million), Pakistan (£10 million), and Iraq (£3 million). Loans granted under this procedure between September 1958 and July 1960 totalled £82.75 million. They included three to India (£28.5 million, £19 million and £3 million) and others to Pakistan (£10 million), Nigeria (£12 million), the Sudan (£5 million), Yugoslavia (£3 million) and Malaya (£2.25 million). Three further loans have been approved in principle: to India (£10 million), Pakistan (£5 million) and Ceylon (£2.5 million).

#### *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 1959, the corporation reported that it had 88 continuing projects, and a total capital commitment of nearly £115 million. The projects were divided up as follows: utilities (power, transport, communications, housing) 45.2 per cent; primary production (agriculture, minerals, forestry) 43.1 per cent; commerce and industry (factories, hotels) 11.7 per cent.

#### *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 1959-60, £33.4 million was issued as loans. These loans and grants are used by the dependent territories to supplement development expenditure from their own resources and from market borrowing.

#### *Other Government Sources*

United Kingdom Government funds are also made available for overseas purposes in other ways than those mentioned above, e.g., grants and loans to assist the administrations of certain dependent territories; in special circumstances, direct financial assistance (other than loans under the Export Guarantees Acts) is provided for independent Commonwealth and foreign Governments—examples are Malaya and Libya.

#### *United Kingdom 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 affiliate, the International Finance Corporation (IFC), the United Nations Expanded Programme for Technical Assistance and Special Fund for Technical Assistance, and (through private and public channels) the Colombo Plan. After September 1960, aid will also be provided through the International Development Association (IDA).

The United Kingdom's subscription to IBRD is the second largest of any country; originally \$1,300 million, it was increased to \$2,600 million in September 1959 as part of the general increase in the Bank's capital in order to facilitate its borrowings in capital markets.

In accordance with the rules of IBRD 2 per cent (about £9 million) of the original subscription was paid in gold and dollars and is freely available for IBRD to lend to any country while 18 per cent (about £84 million) was paid in sterling and can be lent only with the United Kingdom's permission. In fact, the United Kingdom gave permission for £4 million of this to be lent to any member country, and for the remaining £80 million to be lent to Commonwealth countries; nearly all the 18 per cent subscription had been disbursed by June 1960. 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 to contribute the equivalent of \$131 million to the capital of the IDA, which is being set up under the auspices of the IBRD, to provide capital on special terms for under-developed countries.

The United Kingdom is also the second largest contributor to IFC,<sup>1</sup> and has subscribed \$14.4 million of the corporation's total capital of \$100 million. In addition, the United Kingdom has contributed nearly £7½ million to the United Nations Expanded Programme of Technical Assistance<sup>2</sup> and in 1960 provided \$5 million towards the resources of the United Nations Special Fund.<sup>3</sup>

### *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 disbursements from the United Kingdom Exchequer to Colombo Plan countries from 1951 to 31st March, 1960, amounted to about £150 million (not including the sterling releases mentioned above or releases from the United Kingdom's sterling subscription to IBRD). This figure comprises disbursements from departmental votes; aid given under the Colonial Development and Welfare Acts and from the Colonial Development Corporation to Malaya, North Borneo and Sarawak; technical assistance; ECGD credits. In addition to the £150 million disbursements mentioned, some £30 million from the United Kingdom stood committed at 1st April, 1960.

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 IX, The National Economy.

<sup>1</sup> IFC was set up as an affiliate of IBRD in 1956 to assist the growth of private enterprise in member countries.

<sup>2</sup> The object of this programme is to provide under-developed countries with expert advice and training facilities over a wide field.

<sup>3</sup> The object of the fund is to extend the scope and resources of the existing technical assistance and development programmes of the United Nations.

The 1957 Census of Distribution, which was a large-scale sample inquiry, provides an account of the structure of retail trade. 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.

### WHOLESALE TRADE

On the basis of some pre-war researches,<sup>1</sup> it would appear that about 17 per cent of sales were made to consumers through producers' own selling organisations, including their own retail outlets and mail-order businesses, while more than 40 per cent were accounted for by direct sales by producers to retailers; and it is estimated that approximately a further 40 per cent of sales moved through wholesale channels.

These channels are most in evidence in the distribution of textiles, agricultural produce and foodstuffs. The 1950 Census returns, which covered about 92 per cent of all wholesalers, showed a total employment of about 800,000 in wholesaling. Out of a total of some 55,700 wholesale establishments, there were about 7,000 in the clothing, footwear and textile trades, 6,900 in the groceries, confectionery and drink trades and 6,900 in other food trades.

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 £75 million worth 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 gaining some of the advantages 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 businesses 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

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<sup>1</sup> An indication of the general pattern of wholesale trade before the war is given in some unofficial pioneer studies, for example, *The Distribution of Consumer Goods*, by James B. Jefferys, published in 1950.



Distribution, the amount of business done by these traders is usually very small; their average turnover was less than £2,000 per year. Table 37 shows the shares of the four main groups of retail business in total turnover in 1957.

TABLE 37  
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
<b>TOTAL RETAIL TRADE ..</b>	<b>7,798</b>	<b>100.0</b>

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 2.7 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, and recorded in Table 38, grocery and other food retailing groups numbered nearly 276,000 establishments, and the clothing and footwear group about 94,000.

TABLE 38  
RETAIL AND SERVICE TRADES, 1950 AND 1957

	Number of Establishments		Turnover		Percentage change in turnover
	1950	1957	1950	1957	
			£ million	£ million	
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 1959, total retail sales had advanced 7 per cent over the 1957 level. Within this total, the multiple retailers continued to advance much more rapidly than the other retailers, their 1959 sales being 15 per cent greater than in 1957, compared with increases of 9 per cent for department stores, 4 per cent for independent retailers and 4 per cent for co-operative societies. The rate of increase also varied commodity-wise, the durable goods sector (furniture, radio and television, household appliances and cycles) showing the largest advance, partly as a result of the lifting of hire purchase restrictions in October 1958; in the year 1959 sales by durable goods' shops were as much as 18 per cent greater than in 1957. Clothing and footwear shops' sales showed an increase of 4 per cent between 1957 and 1959, the whole of their increase occurring in 1959, while food shops' sales advanced by 6 per cent, spread evenly over the two years. A notable feature of 1959 was the stability of retail prices and with these showing virtually no increase on 1958 almost the whole of the increase in the value of sales (4 per cent over 1958) was attributable to a greater volume of sales.

### **Self-Service Shops and Mobile Shops**

The development of self-service in retail establishments since 1950 has probably helped the multiple stores and the retail co-operatives to achieve a higher rate of expansion in sales. The number of self-service shops in the United Kingdom in 1960 was probably over 6,000 and new self-service outlets are being established at the rate of some 800 a year. About 60 per cent of these shops are thought to be owned by retail co-operative societies and the majority of the remainder 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 1959 rate of sales at some £340 million. Self-service shops as a whole are now estimated to be responsible for about 15-16 per cent of retail sales 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, have been operating since 1956 in the United Kingdom. By 1960, about 400 had been opened, nearly one-half of them in or around the London area. Co-operative societies own nearly half of the supermarkets, and multiple stores about two-fifths. It is estimated that new supermarkets are opening at the rate of 100 a year.

There has also been a large increase in the number of mobile shops serving outlying housing estates and rural areas. Some 8,000 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. 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. 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 may fix lower limits. Only a low rate of interest is paid on the shares.

At the end of 1958, there were 1,015 retail co-operative societies registered under the Industrial and Provident Societies Act, but amalgamations are slowly diminishing the number of societies. More than a quarter of the total membership of the co-operatives (12,594,000) was provided by the eleven largest societies, each of which had a membership of more than 130,000. One, the London Co-operative Society with about 1.3 million members, is the largest retail co-operative in the world. Total sales of the retail co-operative societies in 1958 reached £998 million (this figure includes certain activities not covered by the Census of Distribution figure in Table 37); the largest society had a turnover of more than £50 million, and of the total trading surplus, £50 million 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 advantages of large-scale production and distribution, they have collectively established wholesale and production societies.<sup>1</sup>

## 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. Controls imposed in 1955 were completely revoked in October 1958, but in April 1960 minimum deposits and maximum repayment periods for most categories of consumer goods were reintroduced. By the end of June 1960, the total hire-purchase debt had grown to £967 million.

Retailers finance most of their own hire-purchase business (covering furniture and other domestic goods) and at the end of June 1960 the hire-purchase debt owed directly to them, including a small amount rediscounted by finance houses, was £337 million. The balance of their 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 1960, the hire-purchase debt owed directly to them was £630 million. There are a large number of these companies but a high proportion of the business is done by a small number who operate on a national scale.

## Packaging

The British Productivity Council estimated in 1958 that British industry spent not less than £400 million annually on packaging, an increase of one-third 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

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<sup>1</sup> The two major wholesale societies are the Co-operative Wholesale Society Limited and the Scottish Co-operative Wholesale Society Limited.



changes which have taken place in packaging methods. These developments are reflected in the marked increases in output of the industries concerned—plastics, fibreboard, 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, are being used at a rate of over 25 million a year. Laminated aluminium foil is now employed extensively as a wrapping material in the food industry. A Packaging Centre has been set up in London to provide information on packaging methods.

### Advertising

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 £405 million is estimated<sup>1</sup> to have been spent on all forms of advertising in 1959. Almost £200 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 £60 million (about 18 per cent more than in 1958) 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 profession is the Institute of Incorporated Practitioners in Advertising.

### 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. 265) has established a number of standards for consumer goods, and the Council of Industrial Design (see p. 226) 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, with a membership of 63,000 and the Consumers' Association Ltd., a private body financed by the subscriptions of members, who number 175,000. 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 was set up by the President of the Board of Trade, in the summer of 1959, to consider and report whether changes in the law and other measures are desirable for the further protection of the consumer. It published an interim report in April 1960 (*Cmnd. 1011*), in which it recommended the enactment of legislation

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<sup>1</sup> This estimate was given by Mark Abrams in an article in the *Financial Times* of 20th April, 1960.

empowering ministers to make regulations prohibiting the sale of consumer goods not conforming to specified safety standards in any case where such a prohibition becomes necessary.

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. 268).

A prospective purchaser of a second-hand car can obtain, on application to a Citizens' Advice Bureau (see p. 133), 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.

# XIV. LABOUR

## MANPOWER

The total working population of Great Britain at end-June 1960 was about 24 million, some 48 per cent of the total population, and included about 73 per cent of persons of normal working age (15 years to 59 years for women, 15 years to 64 years for men). In fact, about 95 per cent of British men of working age are today in or seeking gainful work. The remaining 5 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 50 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 nearly  $1\frac{1}{4}$  million older men and women still at work. The great majority of the working population work for a wage or salary, but between  $1\frac{1}{2}$  and  $1\frac{3}{4}$  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. Changes in social habits have also had their effect. The minimum working age has been raised to 15 years. The proportion of those over the normal working age who are occupied 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 59. 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. Almost all single women in their early twenties are in, or seeking, employment, compared with rather more than half in their late fifties; among married women, however, the proportion occupied, which is between a third and two-fifths for women in their early twenties, declines for the age-groups 25 to 34 but rises again for those aged between 35 and 54. Nearly 30 per cent of the female labour force is under 25 years of age and about 6 per cent is over 60. An increasing number of women in the middle and upper age groups are taking up employment (including part-time work) and the total number of married women occupied is now as great as, if not greater than, the number of single women occupied.

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 at great personal inconvenience, 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 and the growth of the population of working age slowed down, largely because of the low birth rates of the 1930s. However, after remaining fairly steady from mid-1948 to mid-1949, the total working population rose slowly until the autumn of 1957, then fell slightly until March 1959, but has since tended to rise. Owing to the high birth rate in the years 1944-49, a fairly rapid increase in the population of working age, and therefore in the working population, is expected in the next five years.

The broad changes in the manpower position in Great Britain between mid-1948 and mid-1960 are shown in Table 39. Figures for mid-1960 are provisional.

TABLE 39  
GENERAL MANPOWER POSITION IN GREAT BRITAIN

*Thousands*

	End- June 1948	End- June 1959	End- June 1960
Total Working Population (a):			
Men .. .. .	15,657	16,137	16,191
Women .. .. .	7,123	8,008	8,210
TOTALS .. .. .	22,780	24,145	24,401
H.M. Forces (including Women's Services):			
Men .. .. .	807	550	503
Women .. .. .	39	15	15
TOTALS .. .. .	846	565	518
Registered Unemployed (b):			
Wholly unemployed .. .. .	273	379	290
Temporarily stopped (c) .. .. .	9	24	8
Number in Civil Employment:			
Men .. .. .	14,549	15,308	15,478
Women .. .. .	7,020	7,889	8,115
TOTALS .. .. .	21,569	23,197	23,593

Source: Ministry of Labour.

(a) The total working population represents the estimated total number of persons aged 15 and over who work for pay or gain, or register themselves as available for such work. The total comprises the armed forces, men and women on release leave not yet in employment, all persons—employers and workers on their own account as well as employees—in civil employment (including persons temporarily laid off but still on the employers' pay-rolls) and wholly unemployed persons registered for employment. Part-time workers are counted as full units. The number of persons on release leave is not shown separately as it has been small in recent years.

(b) The unemployment figures are end-month estimates.

(c) The figures for the 'temporarily stopped' have been excluded from the computation of the total working population, as they are already included in civil employment.

### Deployment of Labour

Some 41 per cent of those in civil employment are employed in the mining and manufacturing industries and only about  $4\frac{1}{2}$  per cent in agriculture and fisheries, even at the height of summer. Over half of those in manufacturing are in the metals, engineering, vehicles and chemicals 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 40. Figures for mid-1960 are provisional.

The numbers given in Table 40, as working in an industry or service, include those engaged on administrative and clerical work, so that the numbers engaged on productive processes are smaller than those given for the industries as a whole. The 1951 Censuses

TABLE 40  
ANALYSIS OF CIVIL EMPLOYMENT IN GREAT BRITAIN

Thousands

Industry or Service	End- June 1948	End- June 1959 (a)		End- June 1960
		old basis	new basis	
Agriculture and fisheries ..	1,178	999	999	971
Mining and quarrying .. ..	876	823	826	765
Manufacturing industries:				
<i>Chemical and allied trades</i> ..	441	544	520	532
<i>Metals, engineering and vehicles</i> ..	3,944	4,602	4,166	4,397
<i>Textiles</i> .. .. .	931	851	851	863
<i>Clothing</i> .. .. .	649	644	565	578
<i>Food, drink and tobacco</i> ..	750	939	818	830
<i>Other manufactures</i> .. ..	1,422	1,589	1,557	1,634
Totals in manufacturing industries	8,137	9,169	8,477	8,834
Construction .. .. .	1,450	1,509	1,523	1,541
Gas, electricity and water ..	321	374	374	370
Transport and communications ..	1,787	1,676	1,672	1,652
Distributive trades .. .. .	2,484	3,000	3,209	3,265
Professional, financial and miscellaneous services .. ..	3,954	4,340	4,874	4,954
National Government Service ..	682	520	505	501
Local Government Service ..	700	787	738	740
TOTALS IN CIVIL EMPLOYMENT	21,569	23,197	23,197	23,593

Source: Ministry of Labour.

(a) A new standard industrial classification was introduced in 1958.

of Population showed that less than a third of men at work and less than a quarter of women at work were employed in manual occupations in mining or manufacturing industry. On the other hand, there were in Great Britain at the time of the 1951 Censuses of Population over 1,400,000 women clerical workers (including typists), over 800,000 in retail trade, over one million women domestic workers or charwomen (including those in hotels, institutions and offices), 500,000 women in various other forms of personal service (including catering), nearly a quarter of a million nurses, and 220,000 women teachers.

The industrial and occupational distribution of the population has changed during the twentieth century. Some short-term changes were brought about by 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 and clerical employment, including public administration, and a very large increase in the employment of women in clerical work, including typing.
3. A decline in employment in certain large old-established industries, notably coalmining and cotton textiles.
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 10 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. This long-term trend was reversed only during the two world wars.

### **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. 255-7) but, in the main, to changes in the general economic situation. The general demand for labour has been high, the number of vacancies on the registers of employment exchanges usually exceeding the number of unemployed, while the demand for certain types of skilled craftsmen and for qualified scientists, engineers and technicians has far exceeded the supply.

From 1945 to 1957, the unemployment rate in Great Britain (the ratio of the number of unemployed to the total number of employees) ranged between 1 and 2 per cent, except for two brief periods (the coal shortage in the winter of 1946-47 and the textile slump of 1952). Towards the end of 1957, there was, partly as a result of anti-inflationary measures, a slackening in the general demand for labour, and an easing of the shortages of skilled engineering workers. In 1958, unemployment rose, and the unemployment rate reached a peak of 2.8 per cent in March 1959. Since then, unemployment has tended to fall as industry and commerce have responded to rising demand.



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, including most of Cornwall. Under the Local Employment Act, 1960, the Government has powers to alleviate unemployment in those districts known as development districts.

### **Northern Ireland**

The total working population of Northern Ireland—including employers and self-employed, but excluding certain unpaid helpers—was about 534,000 in June 1959 (363,000 males and 171,000 females). The largest 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 79,000 in mid-1959, 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 18,000. The textile industry, traditionally concerned with linen, employs about 63,000 people and now makes extensive 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 mid-July 1960 it was about 6 per cent of the insured employees and, since 1945, 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 are additional services intended to meet the needs of men and women who are qualified, or who are likely to qualify, for professional, administrative, managerial, senior executive and higher technical

and scientific posts at home and overseas. These are operated in Great Britain as follows:

1. The Technical and Scientific Register, kept centrally in London, which deals with qualified scientists, engineers, architects and surveyors.
2. Regional Nursing Appointments Offices (10) and Nursing Appointments Offices (164), which deal with recruitment for training and employment in nursing, midwifery, radiography, physiotherapy, occupational therapy and similar professions and medical laboratory technical work.
3. The Professional and Executive Register held at certain of the larger employment exchanges, which provides a service for all other persons qualified for professional and senior executive posts; ex-regular officers of the armed forces; and young men and women suitable for training for management. Information about this service can be obtained from any local office of the ministry.

### **General 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 Executive 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.

The reduction in the armed forces as a result of plans announced in 1957 for the reorganisation of defence (see p. 110) made necessary a special service to help the many regular officers and other ranks returning to civilian life. A Regular Forces Resettlement Service, assisted by an advisory board representative of employers and trade unions, was started within the Ministry of Labour in 1957. Between July 1957 and the end of March 1960 about 16,000 officers and 200,000 other ranks—about two-thirds of those to be prematurely retired—left the armed forces and nearly all found work. By the end of June 1960 only 680 officers and 703 other ranks remained unemployed. The advisory board, originally appointed for two years, has not been reappointed. On the recommendation of the advisory board the Ministry of Labour arranged with local education authorities in various parts of the country for the provision at commercial colleges of short business training courses lasting six weeks and designed to meet the needs of regulars who wish to take up a business career. A four-week course in the skills of industrial supervision has recently been introduced to help the resettlement in civil life of regular Warrant Officers and senior NCOs. The courses are held at the ministry's Staff Training College, Letchworth.

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 more widely. 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 14 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. A disabled person can be trained under the scheme in any occupation which offers a reasonable prospect of resettlement. Training in most trades is also open to those leaving the regular armed forces. Other able-bodied men and women can be considered for training at Government Training Centres, where a fairly wide range of trades is available.

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. Over 5,000 people were trained under the scheme in 1959, and about 95 per cent of them were subsequently employed in the trade for which they had been trained.

In recent years, it has been the Government's policy, in view of the increasing numbers of older persons in the population, to promote the employment of older men and women by persuading employers to change their approach to the problem. In 1952, the Minister of Labour appointed the National Advisory Committee on the Employment of Older Men and Women to advise and assist him in carrying out this policy. The committee's first report, published in October 1953, recommended that the test for engagement should be capacity and not age and that all who can give effective service should have the chance to continue in work if they so wish; and it made suggestions for overcoming any difficulties that might prevent these principles from being applied. These recommendations have been put into practice by the Government and by many other leading employers, and have had a favourable influence upon employers and upon public opinion in general. The committee issued its second report in December 1955, in which it reviewed developments. In November 1958, it was decided to disband the committee as further work in this field could best be carried out through the ordinary machinery of the National Joint Advisory Council.

### **Training of Apprentices**

The Government training scheme has until recently been confined to adults. In view of the larger age-groups beginning to leave school, however, the Minister of Labour announced in April 1960, that he proposed to establish a certain number of classes for first-year apprentices at Government Training Centres. The training would be free and full time, and would include release for further education on one day a week, but employers would have to undertake to maintain the apprentices' pay and to take them back to complete their training. The scheme would be on a limited scale (300 places) and preference would be given to firms which found it impracticable to undertake apprentice training or to increase their present number of apprentices.

### **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, whose work is mainly directed to the training of firms' TWI instructors, who then train the supervisors in their own organisations by the group discussion method. 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.

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.

### Services for Foreigners

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). About 40,000 such permits are issued each year. Of these, approximately one-half are for domestic workers in hospitals, schools, other institutions and private households, and 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. 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 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 of Labour, 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 (see p. 13), 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.

It must be stressed that these controls over entry and employment apply only to citizens of foreign countries. Except as regards employment in Northern Ireland, there are no such controls over persons from Commonwealth countries and territories overseas and citizens of the Irish Republic. There are no current records of the numbers now resident or in employment, but information about the numbers of such persons resident in 1951 is available from the population censuses.

### **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. Recently the service has launched a scheme for providing first-year apprenticeship training in Government Training Centres. Local youth employment committees, made up of teachers, employers, workers and other appropriate interests, assist the service in an advisory capacity.

In Northern Ireland, a Youth Employment Service of more limited scope is operated by the Ministry of Labour and National Insurance, and in co-operation with this service, one local education authority provides a Vocational Guidance Service. A comprehensive Youth Employment Service similar in scope to that operating in Great Britain is now being set up.

### **Disablement Resettlement Service**

The purpose of the Disabled Persons (Employment) Acts, 1944 and 1958, on which all the ministry's work 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 four 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 in April 1960 was 692,000. At the same date 54,000 registered disabled were unemployed, 50,000 being considered capable of ordinary employment. The remaining 4,000 were so severely disabled as to be classed as unlikely to obtain ordinary employment, though in fact many so classed are found work in unsubsidised competitive undertakings by careful selective placement.

3. *Industrial Rehabilitation and Vocational Training.* Industrial rehabilitation is provided at residential and non-residential units run by the Ministry of Labour where physical and mental toning-up is given and, for those who need it, vocational guidance as to the best kind of employment to take up.<sup>1</sup> For the blind, similar industrial rehabilitation facilities, to the cost of which the ministry contributes, are available at two centres conducted by voluntary organisations.

There are vocational training facilities for the disabled at Government Training Centres, educational institutions and employers' establishments (see p. 454). 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 and training for the purpose of acquiring professional qualifications.

4. *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 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 1959,

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<sup>1</sup> For an account of medical rehabilitation of the disabled, see p. 149.



Remploy Ltd. operated 90 factories and employed 6,275 severely disabled men and women, including some 130 homeworkers.

Facilities for the employment of blind persons are provided by local authorities directly or through voluntary bodies, with the financial assistance of the Ministry of Labour. At end-December 1959, there were 67 workshops for the blind in which there were 264 blind persons in training and 3,753 in employment. The ministry also helped to finance the training or employment of 1,064 severely disabled sighted persons in 39 workshops run by 32 voluntary undertakings or local authorities. Some 1,200 blind persons were working at home under homeworkers' schemes.

## CONDITIONS OF WORK AND TERMS OF EMPLOYMENT

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 a limited practical objective, i.e. the improvement of their members' wages and conditions through skilful and honest negotiation from positions of financial strength.

After 1880, the organisation of unskilled workers became more extensive and effective and the whole tone of trade unionism became more militant and political. At the same time, many employers were still hostile to trade unionism and were unwilling to negotiate with trade unions or to recognise agreements made on an industry-wide basis. 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 trade union held to be in itself a legal contract of employment.

In practice, however, minimum standards exist and are enforced for both the conditions of work and the wages and other terms of employment of a substantial majority of British workers. Settlement of terms of employment, however, involves principles, methods and machinery quite different from the determination of conditions of work. Minimum standards for conditions of work are laid down mainly by statute. Acts

of Parliament and statutory instruments prescribe minimum standards of safety, health and welfare, regulate hours of work for women and young persons, and provide for the appointment of Government Inspectors to enforce the law. In some cases, additional health, safety or welfare requirements are the subject of collective agreements, while many employers provide higher standards on their own initiative with help and advice from Government departments and various voluntary bodies.

Wages and other terms of employment of the majority of workers, on the other hand, are usually settled by collective agreements and the determination by statute of minimum wages, holidays and holiday pay is in principle confined to those trades or industries where the organisation of employers or workers or both is inadequate to negotiate collective agreements and to ensure their observance.

Management-employee relations depend not only on terms and conditions of employment, but on human relationships at the place of work; managements have in recent years become increasingly concerned with improving such relationships.

### CONDITIONS OF WORK: THE LEGISLATIVE BACKGROUND

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, health and welfare are laid down in a number of statutes.

The principal Acts involving enforcement of standards of safety, health or welfare are: the Public Health Acts; the Employment of Women, Young Persons and Children Act, 1920; the Children and Young Persons Act, 1933; the Employment of Women and Young Persons Act, 1936; the Young Persons (Employment) Act, 1938; the Factories Acts, 1937, 1948, and 1959; the Mines and Quarries Act, 1954; the Shops Act, 1950; the Agriculture (Safety, Health and Welfare Provisions) Act, 1956; and the Offices Act, 1960. There are a number of other Acts dealing with particular requirements or particular occupations.

### Powers of Local Authorities

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 work-places which are dirty or badly ventilated or overcrowded as nuisances whose abatement can be enforced. They have also wide powers under the Children and Young Persons Act, 1933, as modified by the Education Acts, 1944 to 1948, to regulate hours and conditions of employment of children in their areas within the limits laid down by national legislation. Apart from this, national legislation forbids the employment of children under 13 years of age, and forbids the employment of children between the ages of 13 and 15 during school hours, or before 6 a.m. or after 8 p.m. on any day, or for more than two hours on schooldays or on Sundays. The employment of children in any industrial undertaking before they reach the age of 15 is prohibited.

#### *Shops*

The Shops Act, 1950, makes local authorities responsible for ensuring that 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 Sundays; but local authorities may make orders modifying these and other provisions of the Act within their own areas. The

hours of work of employees under 16 years of age are normally restricted to 44 a week, and those of employees between 16 and 18 years of age to 48 a week with limited provision for overtime. 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. Local authorities also have powers to ensure reasonable minimum standards of ventilation, temperature, lighting, sanitary accommodation and washing facilities in shops.

### *Offices*

Under the Offices Act, 1960, which will come into force on 1st January, 1962, the Secretary of State for the Home Department may make regulations specifying standards to be applied in offices to protect the health, safety and welfare of employees. These regulations may deal with structure, arrangement and operation and in particular with sanitary conveniences, working facilities, the prevention of overcrowding, lighting, temperature, ventilation, accommodation for clothing, cleaning of offices, drinking water, means of escape in case of fire, first-aid equipment, maintenance and inspection of electrical equipment, the fencing of any dangerous machinery or equipment, and the restriction of the employment of women after childbirth. The enforcement of the provisions of the Act and of regulations made under it are, in general, the responsibility of the local authority in each area, but in offices forming part of a factory or of a mine or quarry the responsibility lies with the Factory Inspectorate or the Mines and Quarries Inspectorate.

### **Factories and Industrial Premises**

Nearly a quarter of a million industrial premises (factories, workshops, slaughterhouses, shipyards, docks and warehouses) and about 25,000 building and civil engineering sites come under the Factories Acts, which are administered by the Ministry of Labour and enforced by H.M. Inspectorate of Factories, which forms part of the ministry. Any person intending to use premises as a factory has to notify the Inspector of Factories of his intention not less than one month before he begins to occupy them.

Under the Acts, 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 investigation of certain dangerous occurrences, industrial poisonings and diseases, and, in addition, a number of general and specific requirements for safety, health and welfare are laid down.

Safety 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 inflammable dust or gas; fire prevention, fire-fighting, fire alarms and means of escape in case of fire; the protection of the eyes; the handling of dangerous substances; and the lifting of heavy weights.

There are also general requirements with regard to health, including cleanliness of workrooms, the observance of proper standards of accommodation and ventilation and of suitable temperatures and lighting, the avoidance of overcrowding and the provision of sanitary accommodation; the protection of workers against inhaling harmful dust or fumes; and with regard to welfare, including the provision of washing facilities, lockers or other accommodation for outdoor clothing, drinking water, first aid and adequate seating arrangements.



All young persons under 18 years of age must, on entry to employment in factories, at docks, or on building operations, be medically examined by doctors appointed by the Chief Inspector of Factories and known as Appointed Factory Doctors (see p. 467), and they must be re-examined annually until they reach the age of 18. Women and young persons are also prohibited from working in certain specified processes involving lead compounds. The working hours of women and young persons between the ages of 16 and 18 are generally limited to 48 in a week and 9 in a day, although some overtime is allowed (up to six hours a week but not more than 100 hours a year nor in more than 25 weeks in a year). Young persons under 16 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 girls at night is, in general, prohibited. The Minister of Labour, however, has discretion to grant applications for relaxations of the rules on working hours if, after consulting the appropriate organisations and employers and workers, he decides that they are clearly in the public interest. Moreover, such relaxations must be published.

The general requirements for safety, health and welfare are supplemented or modified by regulations providing for safeguards against special risks to health or safety. The regulations cover particular industries, processes, and types of machinery, and they include provision for the compulsory periodic medical examination of workers in certain specified industrial processes.

In addition to regulatory functions, the Minister of Labour has been given the duty, under the Factories Act, 1959, to promote safety, health and welfare by the collection and dissemination of information and by investigating safety, health and welfare problems. The Act thus provides a specific statutory basis for activities which have long been an important part of the ministry's work.

### **Mines and Quarries**

The safety, health and welfare of workers in mines and quarries are the subject of comprehensive legislation. 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 generally responsible for the administration of these enactments, while the Mines and Quarries Inspectorate, which is part of the Ministry of Power, is directly responsible for their enforcement.

### **Agriculture**

Two Acts provide for the protection of agricultural workers by means of regulations made by the ministers concerned with agriculture in Great Britain. The special risks involved in the use of chemicals are dealt with in the Agriculture (Poisonous Substances) Act, 1952; general safety is covered by the Agriculture (Safety, Health and Welfare Provisions) Act, 1956.

## 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. 382).

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, health and welfare 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 sanction the appointment of railway employment inspectors to inquire into the more serious accidents to railway employees and 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. Similarly, 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.

## Employment of Young Persons

The Young Persons (Employment) Act, 1938, imposes restrictions on the hours of work of young persons (48 a week under 18 years and 44 a week under 16 years) in certain occupations not covered by the Factories Acts, the Mines and Quarries Act, 1954, or the Shops Act, 1950.

## 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, workshops, ship and building yards and certain other working premises is embodied in the Northern Ireland Factories Acts. The Minister of Labour and National Insurance is responsible for the administration of these Acts and for their enforcement by a factory inspectorate, which forms part of his department.

## CONDITIONS OF WORK IN PRACTICE

**Earnings**

Minimum or standard time rates for most British manual workers, as determined by agreements or wages orders, vary between 3s. 3d. and 4s. 4d. an hour for men and between 2s. 2d. and 3s. 2d. for women. Actual earnings are usually higher. Higher rates are sometimes paid, and piece rates, shift rates and overtime rates raise the level of average earnings. The Ministry of Labour conducts a six-monthly survey of earnings and hours of work of manual workers in manufacturing industries and in some of the principal non-manufacturing industries in Great Britain. The survey made in April 1960 covered about 7 million workers and showed the average hourly earnings in all the industries covered to be as follows:

Men 21 years and over	..	..	..	..	..	..	5s. 10.5d.
Youths and boys under 21 years	..	..	..	..	..	..	2s. 9.4d.
Women 18 years and over: full-time	..	..	..	..	..	..	3s. 6.6d.
part-time	..	..	..	..	..	..	3s. 4.3d.
Girls under 18 years	..	..	..	..	..	..	2s. 2.7d.
Average weekly earnings were:							
Men	..	..	..	..	..	..	282s. 1d.
Youths	..	..	..	..	..	..	123s. 1d.
Women: full-time	..	..	..	..	..	..	145s. 0d.
part-time	..	..	..	..	..	..	72s. 6d.
Girls	..	..	..	..	..	..	93s. 1d.

The survey does not cover agriculture, coalmining, railways, dockwork, shipping, distribution, catering or other services. In agriculture the average weekly earnings for regular adult male workers were 199s. 7d. in the year April 1959 to March 1960; in coalmining, the average weekly cash earnings for men were 319s. 3d. plus 19s. 2d. in kind in April 1960; in the railway services average weekly earnings in March 1959 were 242s. for men in the wage-earning grades, including the workshop grades, and 134s. for women; average weekly earnings of dock workers employed by the National Dock Labour Board from January to March 1960 were 315s. 5d.

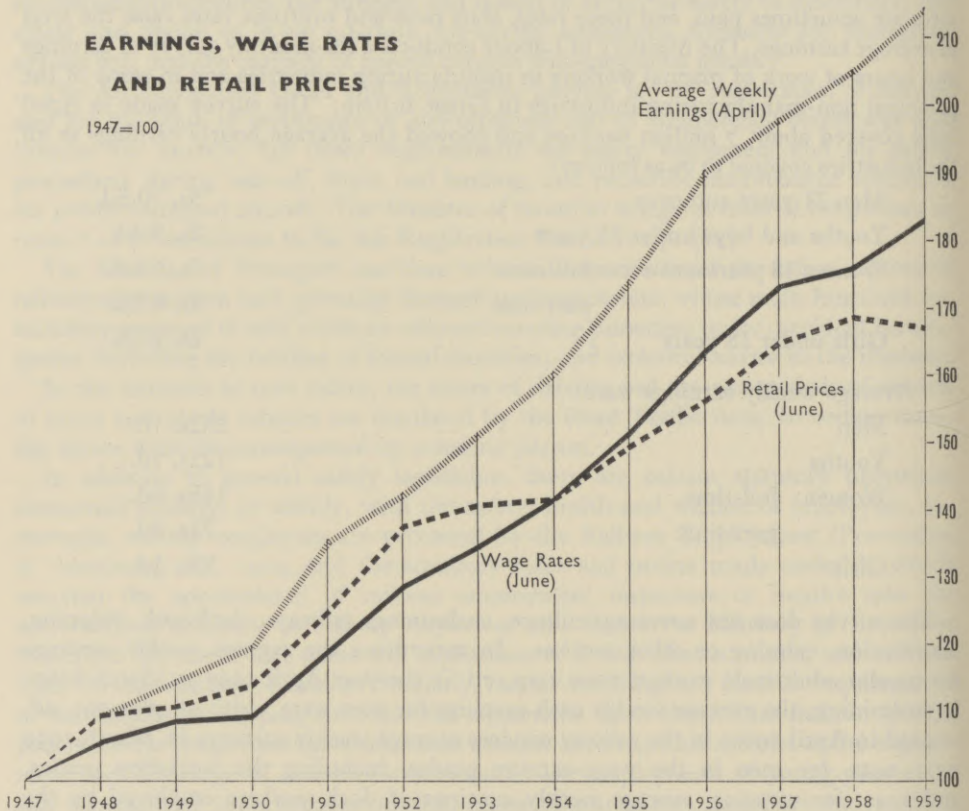
Since 1947, average weekly wage rates have increased by about 86 per cent and average weekly earnings by about 121 per cent. Most of the increase in wage rates has been offset by a rise in the cost of living. The trends of manual workers' earnings, and of wage rates and retail prices from 1948 to 1959, compared with 1947, are shown in the diagram on p. 464.

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.

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 rather limited 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. The pay of shop assistants is on scales prescribing weekly minima from about £6 19s. 6d. to £9 9s. for men and £4 19s. 6d. to £6 16s. 6d. for women. The Office Management Association makes periodic surveys of clerical salaries. The latest survey, of March 1960, which covers 1,112 establishments, employing 87,011 clerks, shows that the average weekly salaries for young inexperienced clerks ranged mainly



from 76s. od. to 120s. od. for youths and from 66s. od. to 101s. od. for girls, while average salaries for adult male clerks ranged from £12 6s. od. for the lowest grade of skill and responsibility to £16 19s. od. for the highest. 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 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 14 to 20 per cent more.

Most of the senior posts in business, the professions and the Civil Service are in the range of £1,500 to £5,000 a year. The posts with salaries of £5,000 to £12,000 a year include those of Cabinet Ministers, chairmen and some other members of

the 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 1957-58 only 2 per cent of all male employees and 0.2 per cent of female employees earned £1,500 or more a year. Only about 0.8 per cent of all employees were earning over £2,000 a year, while only about 0.3 per cent earned over £3,000 and less than 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 occupations, however, a woman in Britain doing the same job as a man is still paid less for doing it, although the position is 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 will in most cases result 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

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 (see p. 459). Agreed weekly hours are mainly from 42 to 46, including in many cases reductions of up to 2 hours which have been agreed in recent months 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 1959 into earnings and hours of manual workers showed that average weekly hours actually worked were as follows:

Men	..	..	..	..	..	..	..	48.0 hours
Youths and boys	..	..	..	..	..	..	..	44.2 hours
Women: full-time	..	..	..	..	..	..	..	40.8 hours
part-time	..	..	..	..	..	..	..	21.6 hours
Girls	..	..	..	..	..	..	..	41.9 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.

### Safety

Safety depends in practice at least as much on the education and voluntary efforts of the employers and of the workers as upon safety regulations. There are nearly a quarter of a million workplaces in Great Britain subject to the Factories Acts. The total strength of the Factory Inspectorate including medical and other specialists was 412 in June 1960 and its authorised strength is 450. In June 1960 there were 1,470 mines (including 730 main coal mines) and 4,594 quarries, including 241 open-cast coal sites; the total strength of the Mines and Quarries Inspectorate was 161. Except in coal mines, prevention of accidents by frequent inspection is impracticable.

The concern of both trade unions and employers' associations with safety helps to maintain safety standards, and the requirements about accident notification (see p. 460) 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. The Accident Prevention Movement, a voluntary educational campaign, is strongly supported by the Factory and the Mines and Quarries Inspectorates. 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.

Most large and many small firms have such 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. 454). An industrial health and safety centre in London is also maintained by the Ministry of Labour. 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 London Building and Engineering Contractors' Accident Prevention Group and by the Merseyside Area Industrial Accident Prevention Group. 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 established by the Chief Inspector of Factories. 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.

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 pp. 388-390).

Fatal and serious industrial accidents have tended to diminish during the twentieth century. They rose somewhat in factories during the early years of the second world war. Since then, however, there has been a further decline, and Britain's fatal industrial accident rate (per thousand man-years) is among the lowest in the world. Accidents sufficiently serious to cause more than three days' absence still happen, however, to 2.3 per cent of male factory employees every year and about 1 per cent of female factory employees. Most of these accidents are due to quite ordinary causes—the handling of goods, the use of hand-tools, or falls—and only a sixth are caused by power-driven machinery. Fatal accidents occurring in 1959 in factories and other places of employment subject to the Factories Acts numbered 598. Fatal accidents in mines and quarries numbered 385. The total of fatal industrial accidents in factories, mines and quarries, railways, civil aviation and trading and fishing vessels numbered 1,298.

### Health and Welfare

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 whole-time or part-time doctor, an industrial nurse, and 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.

Periodic medical examinations are compulsory in factories for all young workers under 18 years of age and for adults in certain dangerous occupations where such examinations are of preventive value. These are carried out by some 2,200 Appointed Factory Doctors, most of whom are engaged on a part-time basis. In addition, a number of employers maintain medical services for their employees, and it is estimated that there are altogether about 1,500 doctors, including about 400 full-time doctors and several thousand nurses and assistant nurses, in the industrial health services. Increasing numbers of doctors and nurses are taking up this work, which aims to provide occupational health facilities of a specialised preventive character.

The big employers, including the State and the boards of nationalised industries, have naturally taken the lead in this expansion, and a number of smaller factories are also covered, either because of special risks or because of their progressive outlook. 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 Medical Research Council, the British Medical Association, the Royal College of Nursing and other organisations and bodies closely concerned with the promotion of industrial health. This committee has been concerned with getting more precise information about the industrial health services. With its advice two pilot surveys have been undertaken for this purpose, one of a particular locality and one of a particular industry. In the light of these and other investigations the committee is examining the best ways of developing industrial health services.

Prompt and effective action in the field of 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. Co-ordination is provided by a number of general and special committees.

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 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.

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. It is estimated that over 19,000 industrial premises have canteen facilities for their workers. There are also colliery canteens providing meals for about 98 per cent of coalminers. Any surplus earned by canteens is used to improve the canteen or to finance some other welfare services, while any losses are borne by the firms.

### LABOUR 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 organisations<sup>1</sup> 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 Acts, 1945 to 1959, the Agricultural Wages Act, 1948, and the Agricultural Wages (Scotland) Act, 1949.

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<sup>1</sup> 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.

## 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. They may provide special services such as general or specialised training courses, or arrange for the provision of such services by some specialist agency.

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; 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 1,800 employers' associations dealing with labour matters and about 270 of them are national federations. These numbers have not varied greatly in the last 25 years.

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 60 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, e.g., 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.

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 1958, the total membership of British trade unions was about 9,500,000. There were 657 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 or lodge. 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 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 negotiation with employers. The scope and authority of these federations and confederations vary greatly in different circumstances.

Nearly all 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, all of them professional or quasi-professional bodies. The objects of the TUC are to promote the interests of all its affiliated organisations and generally to improve the economic and social conditions of the workers. Its membership comprises 186 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, industrial finance, 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 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).

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 a 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. 473).

*At District and Factory Level.* Arrangements for negotiation and discussion 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.

### **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.

To assist conciliation in industry, a staff of conciliation officers forms part of the Ministry of Labour. The duties of these officers are 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.

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 and 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 and are truly representative of the employers or workers in the trade or industry concerned. 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 and 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 usually provide the basis of a settlement.

The machinery for negotiation and conciliation of disputes has helped to reduce the amount of time lost in strikes and lockouts, which has been much less in the past twenty-five years than formerly. In spite of some serious stoppages of work in the past few years, the average time lost per year from 1932 to 1959 was only  $2\frac{1}{4}$  million man-days, or about a tenth of a day per worker per year, compared with an average of 21 million man-days in the 23 years 1910–32. The reduction has been in the size and duration of strikes and not in their number.

### **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 conciliation 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, industrial training and recruitment, double-day-shift working, and the economic situation with special reference to production, wages and prices, and the efficient use of manpower.

### **Joint Consultation at Factory Level**

In addition to the arrangements already described, the purpose of which is mainly but not exclusively the discussion and settlement of terms and conditions of employment, many factories and other establishments provide for joint consultation between management and employees through formally constituted works councils (see p. 477). In many of the larger industries, national agreements recommend such consultation, and in some they even prescribe model rules for its conduct.

### **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. 67), 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 (e.g., manual, clerical and technical employees, and road-menders, see p. 75) 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 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 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 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 WORK PLACE**

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 has done much to promote good personnel management and to assist firms by discussing problems of personnel policy. The service is staffed by a team of experienced personnel officers recruited from industry.

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.

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 over 110 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 have been urged in the report of a sub-committee of the National Joint Advisory Council. This report, published in February 1958 under the title *Training for Skill*, 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. The council issued its first report (July 1958 to December 1959) in January 1960.

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.

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. Personnel management advisers 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 (see p. 217), while units of the Medical Research Council are continuing research into cognate problems.

## XV. 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 1960 was 15,104,329, of which 10,702,131 were for sound and television combined, and 4,402,198 (including 445,258 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.

### **Broadcasting Authorities**

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 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.<sup>1</sup>

Both the BBC and the ITA are independent authorities in so far as daily administration and presentation of programmes are concerned. 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 publish 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, 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 in all four of 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 limited periods at the end of which they may be renewed or amended: the Charter, which sets out the constitution, objects and internal 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) 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', to pay heed to the requirements of the Licence (e.g., it must allow the broadcasting of any announcement at the request of a Government department, and must not broadcast commercial advertisements in any form in its

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<sup>1</sup> In July 1960, the Postmaster General announced the setting up of a Committee of Inquiry into the future of sound and television broadcasting, under the chairmanship of Sir Harry Pilkington. Among other things, the committee will advise on the services which should in future be provided in the United Kingdom by the BBC and the ITA, will recommend whether additional services shall be provided by any other organisation, and will suggest what financial and other conditions shall apply to the conduct of all these services.

programmes without the written consent of the Postmaster General), and to refrain from formulating or allowing the expression of editorial opinion, since to express such opinion would be to depart from the rule of impartiality which the BBC is expected to observe in current affairs and matters of public issue.

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 in 1960 was approximately 16,900.

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 about 7 million copies and attracts a large advertising revenue. The gross revenue from the sale of licences for the year ended 31st March, 1960, amounted to £36,220,276, excluding the excise duty which is not regarded as part of the income from licences and is not available to be spent on broadcasting.

Under the terms of a three-year agreement with the Postmaster General entered into in 1957, the Treasury retained a percentage of the net revenue from the sale of licences, i.e. the gross revenue less a sum deducted by the Post Office equal to the actual expenses it incurs in collecting the licence fees, investigating complaints of electrical interference, and administration. At the outset the Treasury retained 12½ per cent, but in response to BBC representations that income accruing to it was insufficient for the adequate conduct of its services, this percentage was reduced for the year 1959-60 to 7½ per cent. Under the terms of a new agreement, in 1960-61 the Treasury will retain only 5 per cent and in 1961-62 will retain none of the broadcast licence revenue.

In 1959-60, the Post Office deducted £2,394,060 from the gross licence revenue, the Treasury retained £2,529,467 of the net licence revenue and the BBC received £31,286,155. In the same year, the net revenue from publications was £1,054,629, and grant-in-aid receipts amounted to £6,679,000.

#### *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. These companies pay the ITA for the right to present programmes, which may include advertisements. The ITA is, however, required by the Television Act to satisfy itself that the programmes maintain certain standards—e.g., it must 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. The ITA therefore has controlling and regulatory powers of a wide and important character in regard to programmes and advertisements, as well as in the choice of its programme contractors, who are selected on the basis of potential ability to provide an efficient service and, in the case of regional companies, of 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 is also a Deputy Director-General, and a headquarters staff covering all technical, administrative, clerical, typing and office services, which numbered 119 in June 1960. Staff has also been recruited for the transmitting stations and for regional offices, bringing the total number of ITA staff to 349. Thirteen 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 Ltd.); Southern Television Limited; Tyne-Tees Television Limited; Anglia Television Limited; Ulster Television Limited; Westward Television; Border Television Limited; and North of Scotland 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, 1960, these payments amounted to approximately £3.75 million. The authority has no public debt and meets all its capital expenditure from income. Moreover, it is estimated that by 1964 the ITA will hold debt-free physical assets of £5 million at first cost, on which depreciation of £2.75 million will have been provided, and will have accumulated in addition some £4 million in the reserve fund or in other reserve income.

### **Sound Broadcasting**

The BBC operates its domestic sound broadcasting services from 57 long-wave and medium-wave transmitters at 43 transmitting stations, and from 20 permanent



very high frequency (VHF) transmitting stations, built since 1955 to provide a satisfactory alternative to the deteriorating reception of national and regional services on long and medium wave lengths brought about by increased interference from foreign stations. The external broadcasting services are transmitted from 39 high power, high frequency transmitters: 37 in the United Kingdom and two (used for relay purposes) at Tebrau, near Singapore.

There are 148 studios for the domestic sound programmes, of which 59 are in London and 89 at various centres in the regional areas. The external services use 35 London studios. There are also 18 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, the Third Programme and Network Three. These separate, but inter-related, services offer the listening public a wide and varied choice of programmes.

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 (e.g., 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 of Network Three to meet the practical needs (e.g., for acquiring expert information on various aspects of hobbies or work) of groups of people, which cannot properly be met during the evening hours by the other main services.

#### *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 heard in English and in 38 other languages throughout the world for a total, between them, of over 80 hours a day, 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 sub-divided into four regional groupings: South and West European (France, Spain, Italy, Greece, Turkey, Israel), Central European (Czechoslovakia, Hungary, Poland, Finland), East European (Soviet Union, Roumania, Bulgaria, Yugoslavia, Albania), and German. 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 360 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 21 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  $22\frac{1}{4}$  hours every day. The regional services include: the African, Caribbean, and Colonial Services; the North American, the Pacific and the South African Services; the Arabic Service; the Asian Services for India, Pakistan, Ceylon, Iran and the Far Eastern countries; and the Latin American Service.

The external broadcasting services also include the *Transcription Service*, which records over 700 BBC sound programmes annually and distributes them to broadcasting organisations in all parts of the world; the '*English by Radio*' service, which distributes English lessons with explanations in over 30 languages and reaches an audience of several millions by direct transmission from London and by recorded broadcasts from local stations; 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.

The languages and the hours of broadcasting in the external services are prescribed by Government departments concerned with overseas relations. On appropriate occasions, these departments are consulted about the content of the programmes, but the final responsibility remains with 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 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 public television service. By 1960, this service was being transmitted from 23 stations and was available to over 98 per cent of the population. In the course of a year, it 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 Promotion 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 London Television Theatre at Shepherds Bush; eight main London studios; and fully equipped regional studios at Manchester, Birmingham, 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. Substantial progress has been made in the building of the new Television Centre under construction near Shepherds Bush, in west London: the scenery block, the restaurant block and one of the seven production studios, together with ancillary areas, are already in use.

Outside broadcasting (which during the year 1959-60 transmitted nearly 1,000 programmes, providing 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, and also brings scenes of events in Europe to viewers in the United Kingdom.

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 1960, programmes were being transmitted from 11 stations in all parts of Great Britain, and over ten 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 and Dover. 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. In June 1960, this consisted of 1,554 miles of vision links, about 66 per cent of which were two-way circuits.

Both the BBC and the ITV services provide programmes of music, drama, light entertainment, variety, films, news reports covering international, national, and local events, 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, e.g., political discussions including party political broadcasts, 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.

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 has also agreed rules 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.

### **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 1960, there were 469 wire broadcasting services, of which 218 gave television service and the remainder sound-only service. The number of subscribers at that date was 1,054,342, including 322,604 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.

On behalf of Independent Television, audience research is undertaken by an independent research organisation—Television Audience Measurement Limited—using a machine known as a Tammeter, which is fixed to about 6,000 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 very high frequency (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. In its latest report (June 1960) the committee expressed the view that the 405-line standards now in use in the United Kingdom would not be adequate for all purposes for the next twenty-five years and that 625-line transmissions making full use of a channel 8 Mc/s wide would offer worth-while improvements in quality over the present British 405-line transmission in a 5 Mc/s channel. It is recommended in the report that a decision on future monochrome line standards should precede any decision on the introduction of colour, which is not yet ready to be introduced. Changes in monochrome lines would need to be phased over several years, and no Government decision in the matter has yet been made.

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 (the BBC has been making experimental stereophonic transmissions since 1958); 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 satellite transmitters of very low power for providing a television or VHF sound service to small and isolated communities. Following the installation of one such transmitter in 1958, the BBC is proceeding with the construction of 24 more for television and 21 for VHF sound. In June 1959, the BBC inaugurated its cablefilm system for transmitting short newsfilms over the transatlantic telephone cable.

### **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 17 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.

The BBC also participates 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 and Scientific Organisation, 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 thirteen 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.



A sculptor at work: Mr. Henry Moore in his studio.



The National Youth Orchestra, conducted by Mr. Walter Susskind, giving a televised concert.







A pony-trekking party in Scotland.



Caravans are popular for family holidays.

An angler.



Young Scottish rambles in the







Lake District.



Small sailing craft on the River Thames.

On the beach at Hove, Sussex; every year one-third of Britain's people takes a seaside holiday.







The *Avro 748*, which first flew in June 1960, is claimed to have exceptionally low operating costs. It is powered by two Rolls-Royce *Dart* turboprop engines.



The *Firemaster*, a new type of fire-fighting float, with 40-foot tower, designed by the BP Tanker Company for use in Swansea Harbour, South Wales.



## XVI. 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 (by UNESCO, in 1958) that for every 1,000 inhabitants of the United Kingdom 573 copies of daily papers are sold every day. Next comes Sweden with 462 per 1,000 inhabitants. Circulation figures of individual newspapers are proportionately high: seven of the daily morning newspapers and six 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 nearly half its newsprint requirements, while the rest is made from imported raw materials. In 1959, about a million tons of newsprint were used in the United Kingdom. The average size of London national morning papers varies between 12 and 24 pages. Prices of daily newspapers vary from 2½d. (for the majority of papers) to 4d. (for *The Times*). Sunday papers run up to 44 pages and to a price of 5d.

According to *The Newspaper Press Directory*<sup>1</sup> there are some 150 daily and Sunday newspapers: 17 London mornings, 3 London evenings, 10 London Sundays; 18 mornings, 64 evenings and 3 Sundays in England outside London; 1 morning and 3 evenings in Wales; 6 mornings, 8 evenings and 2 Sundays in Scotland; 3 mornings and 1 evening in Northern Ireland; 1 Isle of Man daily; and 1 morning and 2 evenings in the Channel Islands.

There are over 1,300 weekly papers published in Greater London and almost every sizeable 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 has been recognised as a comprehensive and authoritative analysis.

The Royal Commission found that the British press 'is completely independent of outside financial interests and that 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. 494).

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<sup>1</sup> Changes in the number of newspapers occur constantly; figures are based on the 1960 edition of *The Newspaper Press Directory*.

TABLE 41  
 'NATIONAL' NEWSPAPERS AND LONDON EVENINGS

Title	General Political Tendency	Owner	Circulation average Jan.-June (inc.) 1960
DAILIES			
<i>The Times</i> (1785)	Independent	Times Publishing Co. Ltd.	263,355
<i>Daily Telegraph</i> (1855)	Conservative	Daily Telegraph Ltd.	1,176,713
<i>The Guardian</i> (1821)	Liberal	Manchester Guardian and Evening News Ltd.	199,008
<i>Daily Express</i> (1900)	Independent; Stresses importance of British Commonwealth	Beaverbrook Newspapers Ltd.	4,142,856
<i>Daily Mail</i> (1896)	Conservative	Associated Newspapers Ltd.	2,065,643
<i>Daily Herald</i> (1912)	Labour	Odhams Press Ltd.	1,406,708
<i>News Chronicle</i> and <i>Daily Dispatch</i> (1846, as <i>Daily News</i> )	Independent Progressive	Daily News Ltd.	1,162,194
<i>Daily Worker</i> (1930)	Communist	Daily Worker Co-operative Society Ltd.	56,751
<i>Daily Mirror</i> (1903)	Left of centre	Daily Mirror Newspapers Ltd.	4,565,327
<i>Daily Sketch</i> (1909)	Conservative	Associated Newspapers Ltd.	1,117,258
<i>Financial Times</i> (1888)	Independent	The Financial Times Ltd.	122,164
<i>New Daily</i> (1960)	Independent	British Newspaper Trust Society	(a)
LONDON EVENINGS			
<i>Evening News</i> (1881)	As for <i>Daily Mail</i>	As for <i>Daily Mail</i>	1,156,294
<i>Star</i> (1888)	As for <i>News Chronicle</i>	As for <i>News Chronicle</i>	735,172
<i>Evening Standard</i> (1827)	As for <i>Daily Express</i>	As for <i>Daily Express</i>	584,061

(a) The *New Daily* was first published on 25th April, 1960.

TABLE 41 (*contd.*)

Title	General Political Tendency	Owner	Circulation average Jan.-June (inc.) 1960
SUNDAYS			
<i>Observer</i> (1791)	Independent	The Observer Ltd. All shares owned by The Observer Trust	703,723
<i>Sunday Times</i> (1822)	Conservative	Thomson Newspapers Ltd.	942,928
<i>News of the World</i> (1843)	Independent	News of the World Ltd.	6,455,531
<i>People</i> (1881)	Independent	Odhams Press Ltd.	5,322,746
<i>Sunday Express</i> (1918)	As for <i>Daily Express</i>	As for <i>Daily Express</i>	3,566,404
<i>Sunday Dispatch</i> (1801)	As for <i>Daily Mail</i>	As for <i>Daily Mail</i>	1,485,236
<i>Reynolds News and Sunday Citizen</i> (1850)	Supports the Co-operative Movement and the Labour Party	Co-operative Press Ltd.	328,405
<i>Empire News and Sunday Chronicle</i> (1884)	Conservative	As for <i>Sunday Times</i>	2,084,397
<i>Sunday Pictorial</i> (1915)	As for <i>Daily Mirror</i>	Sunday Pictorial Newspapers Ltd.	5,275,312
<i>Sunday Graphic</i> (1915)	Conservative	As for <i>Sunday Times</i>	882,829

### 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.

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, with four London papers, owns directly or through subsidiary companies a total of 14 dailies and 16 weeklies, of which 9 dailies and 6 weeklies are linked under the management of Northcliffe



Newspapers Group Limited; Thomson Allied Newspapers Limited, which owns 11 dailies, 5 weeklies and 4 Sundays and whose chairman also controls Scotsman Publications; Westminster Press Group, which controls 9 dailies and 41 weeklies; Provincial Newspapers Limited, which owns 4 dailies, 19 weeklies and one bi-weekly; the Mirror Group, which owns a London daily and Sunday, each with Manchester editions, one general weekly, and, through a subsidiary company, two Glasgow dailies and one Glasgow Sunday paper; and the Beaverbrook Group, which owns a London morning, evening and Sunday, and a Glasgow evening paper.

There are two very large publishers of periodicals in England and Wales: the Mirror Group, controlling Fleetway Publications (formerly the Amalgamated Press), which produces about 70 periodicals and many technical publications; and Odhams Press Limited, which controls the George Newnes Group and the Longacre Press (formerly Hulton Press) and owns in all about 100 general, specialised, trade and technical journals. 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*, *The Guardian*, *News Chronicle* and *Star*, *Observer*, *Economist*, *Spectator* and *New Statesman*. Although pronounced views may be expressed in newspapers and their political leanings may be obvious, apart from the *Daily Herald* (Labour), *Daily Worker* (Communist) and *Reynolds News* (Co-operative), they are financially completely independent of any political party.

### The 'National' Press

Eleven morning papers with headquarters in London, and one in Manchester, are 'national' in the sense of circulating throughout the British Isles, and there are 10 'national' Sunday papers<sup>1</sup> (see Table 41). Thirteen of these papers have northern editions published in Manchester which after London, is the largest press centre in England. The leading Scottish papers (see p. 491) circulate widely, and certain specialised daily papers also have a circulation not limited by region, e.g., *Lloyd's List and Shipping Gazette* and *Sporting Life*. The three London evening papers each have affiliations with one of the national dailies, but they draw their readership very largely from people living within fifty miles of London.

### Provincial Newspapers

The provincial newspapers, numbering about 80 morning or evening dailies and Sunday papers and over 900 weeklies, provide the general and local news expected by readers whose daily life and interests are known to, and shared by, the newspaper staff. Some 60 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 7½ million, and of the provincial weeklies about 12 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*

<sup>1</sup> A new national Sunday paper is due to be launched early in 1961: the *Sunday Telegraph*, which will be printed on the presses of the *Daily Telegraph*.

(Newcastle upon Tyne), owned by Thomson Newspapers, and the *Sunday Mercury and Weekly Post*, owned by a subsidiary company of the Birmingham Post and Mail Limited—have circulations of over 200,000; while, among evening papers, the *Liverpool Echo and Evening Express* has a circulation of 398,000, the *Manchester Evening News* of 329,668, 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 about 90 London suburban weeklies.

### Scotland

Scotland has six morning, eight evening and two Sunday newspapers; in addition, there are separate Scottish editions of the *Daily Express*, *Daily Mail* and *Sunday Express*, with their own editors. *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 81,196 and of the latter 66,849 (average figures January to end-June 1960). Other morning papers are *The Daily Record* and the *Noon Record*, published in Glasgow; *The Courier and Advertiser*, published in Dundee; and Aberdeen's *The 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 164 weekly papers published in Scottish towns.

### Northern Ireland

Northern Ireland has three morning papers and one evening paper, all printed in Belfast: they are *Belfast News-Letter*, *Northern Whig*, *Irish News* and *Belfast Telegraph*. There are 42 weekly newspapers in Northern Ireland, including three published twice a week. There is also a sporting paper, *Ireland's Saturday Night*, published each Saturday afternoon (Belfast). 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*, a Thomson newspaper, is printed and published in Cardiff; it has a circulation of over 100,000, mainly in the southern half of 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 Evening Express* and to a smaller extent by evening papers published in Manchester, the *Manchester Evening News* and the *Manchester Evening Chronicle*.

Since October 1954, a special Welsh edition of the *Empire News and Sunday Chronicle* has been printed in Cardiff. The *News of the World* and *Reynolds News* carry news about Welsh affairs written by columnists.

The weekly press includes 56 weekly papers in English, many of them carrying articles in Welsh; three bilingual papers; and nine papers in Welsh, of which five 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 has one daily, a special weekly edition of which is published on Saturday, and 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 4,000 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 1,800 trade and technical publications, many with circulations not confined to the United Kingdom; 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 1958 by the British Association of Industrial Editors estimated that some 1,500 house journals were published, and were read by about 30 million people.

The weekly periodicals with the highest sales are: *Woman* (3,103,419); *Woman's Own* (2,403,369); *Reveille* (1,855,166); *Woman's Weekly* (1,459,610); *Weekend* (1,321,213); *Woman's Realm* (1,273,401); *Woman's Mirror* (1,018,628); together with the *Radio Times* (7,002,914) and *TV Times* (3,945,214). Other weeklies with sales of over 900,000 copies include *Today—the New John Bull* and *Woman's Day*. *Woman and Home* (703,098) has the highest sale of popular monthly magazines.

Although their circulations are smaller, the weeklies dealing with political, social and economic affairs enjoy a large and influential readership. *The Economist* covers topics of the day from a far wider angle than its title would indicate and is 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 and is non-party; *Time and Tide* has a right-wing 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.*, which is a world news agency owned by the newspapers of the United Kingdom, Australia and New Zealand. The owners treat their stockholding in Reuters as 'a trust rather than an investment' and are bound by a trust agreement which guarantees the independence and integrity of the news service for all time. Reuters has correspondents in all major capitals and is associated with the principal news agency in every country in the world. It employs several hundred staff correspondents abroad and also has the services of more than 2,000 local journalists as part-time correspondents throughout 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 60 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 so 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 the voluntary co-operation of newspaper offices. There are regional training committees of local newspaper representatives to 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. About 85 per cent of each year's new intake of journalists by British newspapers are now trained under this system.

In 1960, the Commonwealth Press Union launched a travelling fellowship scheme for the training and education of young journalists throughout the Commonwealth. Under the pilot scheme six journalists from overseas are to spend six months in the United Kingdom: three months in the offices of newspapers or periodicals and three months 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 15,268 (December 1959) 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 aims of the Guild of British Newspaper Editors are, *inter alia*, 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 over 300 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 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 editorial representatives, 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 of unjustifiable intrusion by the press into the private lives of individuals, including members of the Royal Family, or other breaches of professional standards, and with the admission of the press to meetings of local authority councils and to hearings of administrative tribunals.

### **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.



## XVII. SPORT

In Britain, the word 'sport' is used generally to describe such pursuits as organised games, athletics, field or country sports, indoor games, aquatic sports, and such other activities as horse-racing, dog-racing, show-jumping, riding, boxing, rock climbing, motor racing, cycling, and rifle shooting. Those who engage in sport may be professionals, i.e. paid players, or they may be 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 part<sup>1</sup> 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—the many thousands of boys and girls and men and women who engage in sport solely for pleasure.

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 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 (e.g., 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, most 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).

The Ministry of Education is closely associated with the Central Council of Physical Recreation (see p. 177), and the Scottish Education Department is similarly associated with the corresponding Scottish body, the Scottish Council of Physical Recreation (see p. 177). Both the ministry and the department also co-operate with the National Playing Fields Association (see p. 177). Local authorities are empowered, under the Public Health Acts and the Physical Training and Recreation Act, 1937, to provide playing fields. They also provide gymnasia, lawn tennis courts, golf courses and swimming baths on a varying scale.

The games and sports described in this chapter are the most popular in Britain, judged by the numbers of participants and spectators, but the list is not an exhaustive one. Outdoor games such as croquet and curling, indoor games such as darts and skittles, aquatic sports such as canoeing, punting and water ski-ing, and such pursuits

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<sup>1</sup> Some sports, for example, athletics, Rugby football, hockey and rowing, are entirely amateur, but in other sports the distinction between professional and amateur status is gradually becoming less strictly defined.

as archery, fencing, flying, gliding, ice-skating, ski-ing and pot-holing, all have their particular following and are part of the British sporting scene.

## 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 as long ago as the Middle Ages (and there are even earlier records), as an organised game it dates from just over a century ago. One type of football, in which the feet only 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, from which it derives its name, and was adopted by the Blackheath football club in 1859.

In England and Wales, the controlling body of the non-handling game, *Association Football* (colloquially known as 'soccer') is the Football Association (FA), which was formed as a limited, non-trading company in 1863. The association's chief function is to promote and protect the interests of the game and to prevent infringement of the agreed rules; it also arranges for the instruction of promising young players and 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. 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, international matches and the receipts of the FA Cup and Amateur Cup, and ploughs back a large portion of the money into the game in various ways. Scotland and Northern Ireland have their own controlling bodies: the Scottish Football Association, which is responsible for the organisation of international games and the Scottish Football Cup fixtures; and the Irish Football Association.

The principal professional matches in England and Wales (played weekly) are controlled by the Football League, which comprises the major professional clubs in these countries. The funds of the League are derived largely from contributions paid by all member clubs in the form of a levy of 4 per cent of the net gate receipts from all 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 1959–60, a total of nearly 33 million people watched league football matches and the gate receipts in all amounted to about £4½ million.

Several million people stake small weekly sums on the results of the matches in the league competitions by filling in what are known as 'pools' coupons; the aggregate sum staked during the 1959–60 season was over £90 million. The odds against winning anything in the pools are very great, but the prizes, which are tax free, are extremely

high—in a season, individual payments of £300,000 may occasionally be made. The promoters of the pools deduct varying amounts from the stakes for commission and expenses, including payments to the leagues.

The annual competition for the FA Cup is organised on a knock-out basis, and any team, whether or not a member of the league, can enter. The final—the Cup Final—is the most important football match 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, in Glasgow. The international matches between England, Scotland, Wales and Ireland, in which distinguished amateur players sometimes appear, 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 'rigger', 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 rigger 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, which was instituted in 1895. The Rugby League 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 *Lords*; four years later



*Lords* 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 various well-established 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 are the *Oval*, Kennington, London, headquarters of the Surrey Cricket Club; *Old Trafford*, Manchester; *Headingley*, Leeds; *Trent Bridge*, Nottingham; and *Lords*—centre of cricket throughout the world.

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 of the club.

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 are played by England against Australia for a mythical trophy called the 'Ashes', and also against South Africa, New Zealand, the West Indies, India and Pakistan. These matches last 30 hours (spread over five or six days), and are played alternately in England and in the country of the opposing eleven; they arouse great popular interest and are widely reported in the press and on sound radio and television.

### *Hockey*

Variants of hockey (as distinct from ice-hockey) have been played in Britain for at least five centuries and perhaps even longer; a haphazard form was played in schools before football became popular, and many hockey clubs were to be found in the London area 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, e.g., 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 the London and Manchester areas. 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 by the 10th Hussars 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, thus enabling promising young players with only modest incomes to learn and play polo. There are about 500 players handicapped by the Hurlingham Polo Association, and the number is growing.

Public interest in polo has increased greatly since the end of the second world war, 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 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 past sixty years; the game is played nowadays in most secondary schools (particularly in girls' schools) throughout the summer months, by families in their own gardens, and at the innumerable tennis clubs that exist throughout Britain. Many local authorities also provide tennis courts in parks and recreation grounds, where members of the public may play at a very low cost.

The annual amateur championships, held for two weeks at the end of June and beginning of July, at Wimbledon, London, are the main event of the lawn tennis season. These championships, for which men and women of many nationalities compete, draw large crowds; there is accommodation for over 30,000 spectators in the grounds of the Wimbledon Club where the matches are played—14,000 can be accommodated round the centre court where the championship finals take place. Other tournaments which attract public attention are: the British Hardcourt Championships; the British Junior Championships, in which boys and girls compete; the County Championships; the Service Championships; and the matches for the Public Schools' Cup. An important international event is the tournament for the Davis Challenge Cup (for men). Britain and the United States of America also compete annually for the Wightman Cup (for women).

### *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, of which there are an increasing number throughout the country. 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 employs five full-time national coaches, towards the cost of which it receives grants from the Ministry of Education. These coaches conduct courses, including courses at a summer school, for teachers and athletes wishing 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 functions analogous to those of the AAA; 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 Great Britain and Northern Ireland compete in the Olympic Games (held every four years), and separate teams representing England, Wales, Scotland, and Northern Ireland compete in the Commonwealth Games, the most recent of which were held at Cardiff, in Wales, in 1958.

*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 at 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 hunting the fox, on horse-back with a pack of hounds especially bred for the purpose, but it also includes stag-hunting, which preceded fox-hunting and is still pursued—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.

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, unless they are farmers. Farmers now outnumber all other riders in the hunting field, but a large number of people, including many who live in towns, take a keen interest in the sport and follow hounds, in cars, on bicycles or on foot.

There are between 190 and 200 packs of hounds in England and Wales, 26 in Ireland, and 10 in Scotland. The packs range in size from the large establishments in the 'shires', i.e. the midlands of England (e.g., 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. Meets of the fox-hounds, held on village greens, at cross-roads, or in the grounds of country houses, and attended by many people who do not intend to ride to hounds, are one of the most picturesque sights of the winter countryside. At the end of the season, most hunts organise steeple-chases, 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 (the latest returns of gun licences issued in the United Kingdom give a total of over 290,000), 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 who 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 game-keepers 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 was 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, to collect and collate information on a national scale and make 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 (the close season lasts from June to October) on privately owned tracts of land known as 'deer forests', although some of them are almost devoid of trees; deer forests range in size from 9,000 to over 30,000 acres.

### *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 since the end of the second world war.

Coastal and deep-sea fishing is free to all, 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 during the nineteenth century, 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**

The most commonly practised of the aquatic sports are rowing, sailing and swimming. All three 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 annual rowing events which excite the greatest enthusiasm 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. 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—and in the regattas held at many riverside resorts every summer.

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. Victory in the boat race is a much-coveted honour, but the winning eight receives no tangible award.

Crews from all over the world compete at Henley Regatta, where various kinds of races rowed over a straight course of one mile 550 yards are arranged, e.g., 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.

The oldest annual event in the English racing calendar is *Doggett's Coat and Badge*, founded in 1716. Originally a race for professional watermen and limited, until recently, to six entrants, the race is now open to amateurs (who must, however, still be apprentice watermen) and, if necessary, 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 since the end of the second world war 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 June 1960 were: International Fourteen Foot, 738; National Eighteens, 237; Enterprise, 5,145; Firefly, 2,564; Merlin Rocket, 1,133; Redwing, 217; Swordfish, 202; Twelve Foot, 1,899; 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. A number of British yachtsmen also took part in a single-handed race across the Atlantic which was held for the first time during 1960.

The famous yacht race between Britain and America for the America's Cup (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 at increasingly long intervals, owing to the expense involved. The cup has remained in America since the institution of the race, the last challenger being the British yacht *Sceptre*, in 1958.

### *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 for devotees of the sport. Considerable interest is taken in underwater swimming, and there are several clubs to which enthusiasts may belong. National and international swimming and diving championships are held annually—the controlling body in England is the Amateur Swimming Association, and in Scotland, the Scottish Amateur Swimming Association. The association is also the controlling body for water polo, a team game played in swimming pools, which originated in Britain around 1880. The Olympic Games include international water polo matches.

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. The races for the Gold Cup and the Royal Hunt Cup are run during the June Ascot week.

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 races must be licensed by the Jockey Club or the National Hunt Committee. Where a totalisator is operated, a certificate of approval is required from the Racecourse Betting Control Board, set up under the Racecourse Betting Act, 1928. From the money staked on the totalisator, the Board is empowered to deduct such percentage (at present approximately 10 per cent of the total stakes) as it may determine, and the revenue secured in this way is applied, after payment of the Board's operating expenses and taxation, for the improvement of racing and horse breeding and the advancement of veterinary science and education. In 1959, some £600,000 (tax free) was assigned in this way. The Betting and Gaming Act, 1960, gives the Board additional powers by laying down that facilities for carrying on pool betting and betting at tote odds on horse races shall be provided only with its authority; and it is hoped that this will enable the Board to obtain further revenue for the benefit of racing.

Betting between bookmakers and members of the public is legal without restriction (except that no young person under the age of eighteen may place a bet) on all courses, and provision for such betting must be made on courses approved by the Racecourse Betting Control Board. Bookmakers and their assistants are charged for admission to an enclosure on a racecourse; during the year ended 31st July, 1959, racecourses received over £450,000 from this source.

Until recently, off-the-course betting was legal only by telephone on credit, but the Betting and Gaming Act, 1960, has made provision for the establishment by the Racecourse Betting Control Board and bookmakers of betting offices where members of the public over eighteen years of age can go to place bets in cash. A further scheme to provide more money for racing is a levy on off-the-course bookmakers, based on the size of their business, to be assessed and collected by a Bookmakers Levy Board.

### *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, which was also founded in 1928, 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 is empowered to operate a totalisator on the 104 'appointed days' and to deduct not more than 6 per cent of the stake money for operating expenses before successful backers are paid, in addition to the 10 per cent tax payable to the Government in respect of bets placed through the greyhound totalisator. The Betting and Gaming Act, 1960, provides that the 'copyright' in tote odds granted to the Race-course Betting Control Board in respect of horse-racing shall also apply 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 several hundred riding schools in Britain, many of a high standard; membership of the British Horse Society has risen to over 10,000; 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 well over 30,000 members. There are over 600 branches of the Pony Club throughout the world, of which more than 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 in this capacity it organises and provides tests, lectures, demonstrations, courses and examinations to further the knowledge and raise the standards of British horsemanship and horsemastership.

Horse trials as well as hunter 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 Harewood, Yorkshire—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 every October (since 1959, at Wembley) and is acknowledged to be one of the finest indoor horse shows in the world.

Since the end of the second world war, show jumping has attracted vast audiences and has increased greatly in popularity. 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, bantam-weight, featherweight, lightweight, light welterweight, welterweight, light middleweight, middleweight, light heavyweight and heavyweight. The fixed weights in professional boxing are the same, except that there are no light welterweight or light middleweight classes.

### **Wrestling**

Wrestling is one of the oldest sports in the world, dating as far back as 430 B.C. The style most commonly used in Britain nowadays 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 its own associations; it is an effective form of defence against physical or armed assault.

### **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 compare with any that occur in other parts of the world. The popularity of mountaineering has increased enormously 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. Short courses for boys and girls over twelve years old and for adults are held at a privately owned mountaineering school opened in 1959 in North Wales.

British mountaineers have taken a leading part in exploring most of the great ranges of the world and in climbing their peaks, e.g., the first ascent of the Matterhorn in 1865, the first ascent 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, and include the British classic races—the British Grand Prix, and the Tourist Trophy for sports cars, which was first held in 1905 in the Isle of Man and later at Dundrod in Northern Ireland, and now takes place on the circuit at Goodwood, Sussex. There are also several British national race meetings (16 in 1959) and British national rallies (8 in 1959), as well as a large number (over 2,500 in 1959) of 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, motor cycle races are held—the most important contest of the year is that for the Isle of Man Tourist Trophy—and motor cycle speedway racing, which was introduced into Britain in 1928, and is governed by the Speedway Control Board.

### **Cycling**

The internationally recognised body for cycle racing in the United Kingdom is the British Cycling Federation—an amalgamation of the British League of Racing Cyclists and the National Cyclists' Union, founded in 1878. The federation 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 40,000. It has consuls in all parts of the United Kingdom to 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 special 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 to all-comers; the latter are restricted to certain competitions. 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

## BRITISH CURRENCY AND CURRENCY EXCHANGE RATES, WEIGHTS AND MEASURES, AND CONVERSION TABLES

### BRITISH CURRENCY

12 pence = 1 shilling (1s.)	5 shillings = 1 crown
2 shillings = 1 florin	20 shillings = 1 pound (£1)
2 shillings and 6 pence = 1 half-crown	21 shillings = 1 guinea

*Coins* in common use are: halfpenny, penny, threepenny piece, sixpence, shilling, two shilling piece (florin), and half-crown. 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 2 shillings; 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 the payment of 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.

### CURRENCY EXCHANGE RATES

COUNTRY	CURRENCY UNIT	CURRENCY UNITS PER £1 STERLING (Par value at 31st July, 1960)
Argentina .. .. .	Peso .. .. .	231.59(b)
Australia .. .. .	Australian Pound .. .. .	1.25
Austria .. .. .	Schilling .. .. .	72.8
Belgium .. .. .	Belgian Franc .. .. .	140.0
Brazil .. .. .	Cruzeiro .. .. .	51.8(a)
Canada .. .. .	Canadian Dollar .. .. .	2.75(b)
Ceylon .. .. .	Ceylon Rupee .. .. .	13.33
Chile .. .. .	Escudo .. .. .	2.95(b)
China (People's Republic) .. .. .	Jen Min Piao (Yuan) .. .. .	6.90 (a)
Denmark .. .. .	Danish Krone .. .. .	19.34
East Africa .. .. .	East African Shilling .. .. .	20.0
Egypt (UAR) .. .. .	Egyptian Pound .. .. .	0.975(a)
France .. .. .	Franc .. .. .	13.82
Germany, Federal Republic of .. .. .	Deutsche Mark .. .. .	11.76
Ghana .. .. .	Ghana Pound .. .. .	1.0
Greece .. .. .	Drachma .. .. .	84.0
Hong Kong .. .. .	Hong Kong Dollar .. .. .	16.0

(a) Official rate: other rates are in operation for certain types of transactions.

(b) Average of daily mean telegraphic transfer rates in July 1960.

## CURRENCY EXCHANGE RATES (contd.)

India .. .. .	Rupee .. .. .	13.33
Irish Republic .. .. .	Irish Pound .. .. .	1.0
Israel .. .. .	Israel Pound .. .. .	5.04(a)
Italy .. .. .	Lira .. .. .	1,750.0
Japan .. .. .	Yen .. .. .	1,008.0
Malaya, Federation of .. .. .	Malayan Dollar .. .. .	8.57
Netherlands, The .. .. .	Guilder (Florin) .. .. .	10.64
New Zealand .. .. .	New Zealand Pound .. .. .	1.0
Nigeria, Federation of .. .. .	Nigerian Pound .. .. .	1.0
Norway .. .. .	Norwegian Krone .. .. .	20.0
Pakistan .. .. .	Pakistan Rupee .. .. .	13.33
Portugal .. .. .	Escudo .. .. .	80.50
Rhodesia and Nyasaland .. .. .	Rhodesian Pound .. .. .	1.0
Singapore .. .. .	Malayan Dollar .. .. .	8.57
South Africa, Union of .. .. .	South African Pound .. .. .	1.0
Spain .. .. .	Peseta .. .. .	168.0
Sweden .. .. .	Krona .. .. .	14.48
Switzerland .. .. .	Swiss Franc .. .. .	12.11(b)
Turkey .. .. .	Turkish Pound .. .. .	25.2(c)
United States of America .. .. .	Dollar .. .. .	2.8
Union of Soviet Socialist Republics .. .. .	Rouble .. .. .	11.2(a)
West Indies, The		
Jamaica .. .. .	Jamaican Pound .. .. .	1.0
Barbados, Leeward Islands, Trinidad and Tobago, and Windward Islands .. .. .	West Indian Dollar .. .. .	4.8

(a) Official rate: other rates are in operation for certain types of transactions.

(b) Average of daily mean telegraphic transfer rates in July 1960.

(c) From 22nd August, 1960.

## 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					



## BRITISH WEIGHTS AND MEASURES AND THEIR METRIC EQUIVALENTS (contd.)

## 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 Hectare	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

	Fahrenheit	Centigrade	Réaumur
Water boils	212°	100°	80°
Water freezes	32°	0°	0°
Blood heat	98.4°	36.9°	29.5°

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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EDDY, J. P. The Justices' Handbook: A Guide to Law, Evidence and Procedure in Magistrates' Courts. 3rd edn	<i>Stevens</i>	1953	18	0
GILES, F. T. The Magistrates' Courts	<i>Penguin Books</i>	1949	2	6
——— 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., Editor. The Migration of the Common Law				
	<i>Stevens</i>	1960	5	0
JAMES, PHILIP S. Introduction to English Law. 3rd edn	<i>Butterworth</i>	1955	17	6

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JENKS, EDWARD. <i>The Book of English Law</i> . 5th edn rev. by D. J. L. Davies	<i>John Murray</i>	1953	24	0
RUBINSTEIN, RONALD. <i>John Citizen and the Law</i> . 4th edn	<i>Penguin Books</i>	1958	5	0
<b>Annual Reports</b>				
The Law Society on the Legal Aid and Advice Act	For 1958-59 <i>HMSO</i>	1960	4	0
The Law Society of Scotland on the Legal Aid Scheme	For 1958-59 <i>HMSO</i>	1960	2	6
Criminal Statistics for England and Wales	For 1959 Cmnd 1100 <i>HMSO</i>	1960	8	0
Criminal Statistics, Scotland	For 1959 Cmnd 1024 <i>HMSO</i>	1960	4	0
Report of the Committee on Civil Jury Trial in Scotland [Strachan Report]	Cmnd 851 <i>HMSO</i>	1959	2	6
The First Report of the Council on Tribunals	<i>HMSO</i>	1960	2	6
Time Spent Awaiting Trial: First Report of the Home Office Research Unit	<i>HMSO</i>	1960	3	0
<b>Treatment of Offenders</b>				
ELKIN, WINIFRED A. <i>The English Penal System</i>	<i>Penguin Books</i>	1957	3	6
FOX, Sir LIONEL W. <i>English Prison and Borstal Systems</i>	<i>Routledge</i>	1952	32	0
FRY, MARGERY. <i>Arms of the Law</i>	<i>Gollancz</i>	1951	8	6
GRÜNHUT, M. <i>Juvenile Offenders Before the Courts</i>	<i>Oxford University Press</i>	1956	25	0
KING, JOAN F. S., <i>Editor</i> . <i>The Probation Service</i>	<i>Butterworth</i>	1958	25	0
KLARE, HUGH J. <i>Anatomy of Prison</i>	<i>Hutchinson</i>	1960	18	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
<b>Annual Reports</b>				
Commissioners of Prisons	For 1959 Cmnd 1117 <i>HMSO</i>	1960	9	6
Council of the Central After-Care Association	For 1959 <i>HMSO</i>	1960	2	0
Prisons in Scotland	For 1959 Cmnd 1048 <i>HMSO</i>	1960	3	6
Penal Practice in a Changing Society	Cmnd 645 <i>HMSO</i>	1959	2	6
Prediction Methods in relation to Borstal Training, by Dr. Hermann Mannheim and Leslie T. Wilkins	<i>HMSO</i>	1955	17	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
Work of the Children's Department of the Home Office	<i>HMSO</i>	1955	8	6
The Treatment of Offenders in Britain.	COI Reference Pamphlet RF.P.4414 <i>HMSO</i>	1960	3	0
<b>The Police Service</b>				
HART, J. M. <i>The British Police</i>	<i>Allen &amp; Unwin</i>	1951	15	0
MORIARTY, C. C. H. <i>Police Procedure and Administration</i> . 6th edn	<i>Butterworth</i>	1955	10	6
SCOTT, Sir HAROLD. <i>Scotland Yard</i>	<i>André Deutsch</i>	1955	18	0

		s.	d.
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 1959 Cmnd 1106	<i>HMSO</i>	1960	5 0
H.M. Inspector of Constabulary, Scotland			
For 1959 Cmnd 1046	<i>HMSO</i>	1960	1 0
H.M. Inspectors of Constabulary (Counties and Boroughs in England and Wales) From October 1958 to December 1959	<i>HMSO</i>	1960	2 0
Police. Choice of Careers. New Series No. 80	<i>HMSO</i>	1957	1 9
The Police Service in Britain Reference Pamphlet RF.P.4164	<i>COI</i>	1959	free*

#### IV. DEFENCE

Brassey's Annual: The Armed Forces Year Book 1959, edited by Rear-Admiral H. G. Thursfield	<i>Cloves</i>	1959	63 0
Jane's All the World's Aircraft 1959-60, edited by Leonard Bridgman	<i>Sampson Low</i>	1960	105 0
Jane's Fighting Ships 1959-60, edited by Raymond Blackman	<i>Sampson Low</i>	1960	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 &amp; Unwin</i>	1959	25 0
LIPSCOMB, Cdr. F. W. The British Submarine	<i>Black</i>	1954	25 0
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 1960-61	<i>HMSO</i>	1960	11 6
Memorandum by the Secretary of State for Air	Cmnd 950	<i>HMSO</i>	1960 3 0
Army Estimates 1960-61	<i>HMSO</i>	1960	13 0
Memorandum of the Secretary of State for War	Cmnd 951	<i>HMSO</i>	1960 3 0
Ministry of Defence Estimate 1960-61	<i>HMSO</i>	1960	1 3
Navy Estimates 1960-61	<i>HMSO</i>	1960	14 6
Statement of the First Lord of the Admiralty	Cmnd 949	<i>HMSO</i>	1960 3 0
Annual Statements on Defence Policy			
Defence: Outline of Future Policy	Cmnd 124	<i>HMSO</i>	1957 1 0
Britain's Contribution to Peace and Security	Cmnd 363	<i>HMSO</i>	1958 1 0
Progress of the Five Year Defence Plan	Cmnd 662	<i>HMSO</i>	1959 9
Report on Defence 1960-61	Cmnd 952	<i>HMSO</i>	1960 1 0
Call Up of Men to the Forces, 1957-60	Cmnd 175	<i>HMSO</i>	1957 4
Central Organisation for Defence	Cmnd 476	<i>HMSO</i>	1958 6
Civil Defence			
Manual of Basic Training [ <i>pamphlets</i> ]	<i>HMSO</i>	1949	1 0
		to	to
		1959	2 0



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Manuals of Civil Defence. Vol. I.

Pamphlet No. 1. Nuclear Weapons

HMSO

1956

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No. 2. Radioactive Fall-out

HMSO

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## V. SOCIAL WELFARE

## State and Voluntary Services

FAMILY WELFARE ASSOCIATION. Guide to the Social Services, 1957-58.

A Year Book of Information respecting the Statutory and Voluntary Means of Assistance. 48th edn

Staples Press

1958

5 0

HALL, M. PENELOPE. The Social Services of Modern England. 4th rev. edn

Routledge

1959

28 0

HAYNES, A. H. The Practitioner's Handbook to the Social Services

Wright &amp; Sons

1955

9 6

KUNSTLER, P. H. K., *Editor*. Social Group Work in Great Britain

Faber &amp; Faber

1955

12 6

MORRIS, C., *Editor*. Social Case-Work in Great Britain. 2nd edn

Faber &amp; Faber

1955

15 0

MORRIS, MARY. Voluntary Organisations and Social Progress

Gollancz

1955

18 0

NATIONAL COUNCIL OF SOCIAL SERVICE. Voluntary Social Services: Handbook of Information and Directory of Organisations, rev. edn

NCSS

1957

10 6

——— Public Social Services: Handbook of Information. 10th edn

NCSS

1955

10 6

TITMUSS, R. M. Essays on the Welfare State

Allen &amp; Unwin

1958

20 0

Official Histories of the Second World War: United Kingdom: Civil Series. Problems of Social Policy, by R. M. Titmuss

Longmans &amp; HMSO

1950

25 0

——— Studies in the Social Services, by S. M. Ferguson and H. Fitzgerald

Longmans &amp; HMSO

1954

22 6

Report of the Working Party on Social Workers in the Local Authority Health and Welfare Services

HMSO

1959

15 0

The Story of the W.V.S. Social Services in Britain

HMSO

1959

3 6

COI Reference Pamphlet RF.P.4246

HMSO

1959

5 6

Children in Britain

COI Reference Pamphlet RF.P.4203

HMSO

1959

3 0

## National Insurance and Related Services

RATHBONE, ELEANOR, Family Allowances

Allen &amp; Unwin

1949

15 0

SHENFIELD, B. E. Social Policies for Old Age

Routledge

1957

25 0

Annual Reports

Ministry of Pensions and National Insurance

For 1959 Cmnd 1133

HMSO

1960

8 0

National Assistance Board

For 1959 Cmnd 1085

HMSO

1960

3 6

National Assistance Board for Northern Ireland

For 1959 Belfast, HMSO

1960

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War Pensions

For 1959 HMSO

1960

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Children in the Care of Local Authorities in England and Wales, March 1959

Annual Statistics

Cmnd 914

HMSO

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Children in the Care of Local Authorities in Scotland, November 1958

Cmnd 779

HMSO

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Everybody's Guide to National Insurance. rev. edn

HMSO

1958

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Improvements in National Assistance	Cmd 782	HMSO	1959	6	
National Insurance Bill 1959: Report of the Government Actuary on the Financial Provisions of the Bill	Cmd 629	HMSO	1959	1 0	
Reports by the Government Actuary on the First and Second Quinquennial Reviews					
National Insurance Act, 1946		HMSO	1954	2 6	
National Insurance (Industrial Injuries) Act, 1946		HMSO	1955	1 3	
National Insurance Acts 1946-59		HMSO	1960	3 6	
National Insurance (Industrial Injuries) Acts, 1946-59		HMSO	1960	1 9	
Social Insurance and Allied Services [Beveridge Report]	Cmd 6404	HMSO	1942	12 6	
Work of the Children's Department of the Home Office		HMSO	1955	8 6	
<b>Health</b>					
ACTON SOCIETY TRUST. National Health Services in Great Britain: Hospitals and the State. Series of 6 Reports	AST		1955 to 1959	4 0 each	
CLARKE, J. J. Introduction to Public Health Law	<i>Cleaver-Hume Press</i>		1949	12 6	
CLEGG, HUGH. Medicine in Britain. 4th edn					
For the British Council	<i>Longmans</i>		1951	2 0	
ECKSTEIN, HARRY. The English Health Service					
<i>Harvard University Press/Oxford University Press</i>			1959	30 0	
NATIONAL COUNCIL OF SOCIAL SERVICE. Help for the Handicapped, by J. H. Nicholson		NCSS	1958	7 6	
ROSS, Sir JAMES STIRLING. The National Health Service in Great Britain		<i>Oxford University Press</i>	1952	35 0	
STOCKS, MARY. A Hundred Years of District Nursing		<i>Allen &amp; Unwin</i>	1960	25 0	
<b>Annual Reports</b>					
Board of Control (Lunacy and Mental Treatment)					
For 1958	HMSO		1959	9	
Central Health Services Council					
For 1959	HMSO		1960	1 6	
Department of Health for Scotland	For 1959	Cmd 983	HMSO	1960	7 0
General Board of Control for Scotland	For 1958	Cmd 892	HMSO	1960	2 6
Health and Local Government Administration in Northern Ireland	For 1958	Cmd 406	<i>Belfast, HMSO</i>	1959	6 0
Ministry of Health					
Part I. 1. National Health Service.					
2. Welfare, Food and Drugs, and Civil Defence					
For 1959	Cmd 1086	HMSO	1960	13 0	
Part II. On the State of the Public Health					
For 1958	Cmd 871	HMSO	1959	12 0	
Mental Health in Scotland		HMSO	1959	6 0	
National Health Service Summarised Accounts	<i>Annual</i>				
For 1958-59	HMSO		1960	3 0	
National Health Service (Scotland) Summarised Accounts	<i>Annual</i>				
For 1958-59	HMSO		1960	2 0	
Report of Committee on Cost of Prescribing (Final)		HMSO	1959	6 0	
Report of Committee of Enquiry into the Cost of the National Health Service [Guillebaud Report]	Cmd 9663	HMSO	1956	11 0	
Report of Committee on General Practice within the National Health Service [Cohen Report]		HMSO	1954	2 6	

			s.	d.
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
— Supplement (Further Statistical Appendix)	Cmnd 1064 <i>HMSO</i>	1960	2	6
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
Report of the Scottish Committee on Prescribing Costs	<i>HMSO</i>	1959	3	0
Services for the Disabled	<i>HMSO</i>	1955	4	6
Third Report of the Standing Committee on Rehabilitation and Resettlement	<i>HMSO</i>	1958	1	3
Health Services in Britain	COI Reference Pamphlet RF.P.4471 <i>HMSO</i>	1960	3	6
Rehabilitation and Care of the Disabled in Britain	Reference Pamphlet RF.P.4274 <i>COI</i>	1960	free*	
<b>Education</b>				
ALEXANDER, W. P. Education in England: The National System, How It Works	<i>Newnes</i>	1954	12	6
ARMFELT, R. The Structure of English Education	<i>Cohen &amp; West</i>	1955	12	6
BARON, GEORGE. A Bibliographical Guide to the English Educational System. 2nd edn	<i>Athlone Press</i>	1960	12	6
BERDHAL, ROBERT O. British Universities and the State	<i>University of California Press/Cambridge University Press</i>	1959	30	0
BRITISH COUNCIL and THE ASSOCIATION OF UNIVERSITIES OF THE BRITISH COMMONWEALTH. Higher Education in the United Kingdom: A Handbook for Students from Overseas. rev. edn	<i>Longmans</i>	1960	6	0
COTGROVE, STEPHEN F. Technical Education and Social Change	<i>Allen &amp; Unwin</i>	1958	25	0
CURTIS, S. J. History of Education in Great Britain. 4th edn	<i>University Tutorial Press</i>	1957	21	0
DENT, H. C. British Education. 3rd edn	For the British Council <i>Longmans</i>	1955	2	0
— Growth in English Education, 1946-1952	<i>Routledge</i>	1954	16	0
— Editor. Year Book of Technical Education and Careers in Industry	For 1960 <i>Black</i>	1960	30	0
DONCERKERY, S. R. Universities in Britain	<i>Oxford University Press</i>	1953	10	6
DUFF, Sir P. W. Universities in Britain	<i>British Council/Longmans</i>	1959	2	6
Education Committees Year Book, 1960-61	<i>Councils and Education Press</i>	1960	32	0
INSTITUTE OF PHYSICS. The Postgraduate Training of Physicists in British Universities	<i>Institute of Physics</i>	1960	2	0
LESTER SMITH, W. O. Education: An Introductory Survey	<i>Penguin Books</i>	1957	3	6
— Education in Great Britain. 3rd edn	<i>Oxford University Press</i>	1958	7	6
NATIONAL INSTITUTE OF ADULT EDUCATION. Adult Education in the United Kingdom: A Directory of Organisations	<i>National Institute of Adult Education</i>	1956	5	0



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PEERS, R. A. Adult Education	<i>Routledge</i>	1958	35	0
VENABLES, P. F. R. Technical Education	<i>Bell</i>	1955	42	0
Yearbook of the Commonwealth Universities <i>Association of Universities of the British Commonwealth</i>		1960	87	6
Annual Reports				
Ministry of Education				
Education in 1959	Cmnd 1088 <i>HMSO</i>	1960	14	6
Ministry of Education for Northern Ireland, 1958-59	Cmd 409 <i>Belfast, HMSO</i>	1960	6	0
Scottish Education Department				
Education in Scotland in 1959	Cmnd 1018 <i>HMSO</i>	1960	7	0
Education in 1900-1950	Cmd 8244 <i>HMSO</i>	1951	12	0
Education in Scotland: The Next Step	Cmd 603 <i>HMSO</i>	1958		6
15 to 18: Report of the Central Advisory Council for Education [Crowther Report]: Vol. I	<i>HMSO</i>	1959	12	6
Vol. II (Surveys)	<i>HMSO</i>	1960	8	6
Further Education. A Report of the Advisory Council on Education in Scotland	Cmd 8454 <i>HMSO</i>	1952	5	0
Further Education for Commerce. Report of the Advisory Committee	<i>HMSO</i>	1959	2	6
The Health of the School Child. Report of the Chief Medical Officer of the Ministry of Education for 1956 and 1957 and Fifty Years of the School Health Service	<i>HMSO</i>	1959	10	6
Junior Secondary Education [Scotland]	<i>HMSO</i>	1955	5	0
The New Secondary Education (Ministry of Education Pamphlet No. 9)	<i>HMSO</i>	1947	3	6
Public Education in Scotland. 3rd edn	<i>HMSO</i>	1958	3	6
Report of the Committee on Grants to Students	Cmdnd 1051 <i>HMSO</i>	1960	6	6
Report of the Committee on Organisation and Finance of Adult Education	<i>HMSO</i>	1954	2	6
Report of the Working Party on the Curriculum of the Senior Secondary School (Scotland)	<i>HMSO</i>	1959	3	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)	<i>HMSO</i>	1957		9
Secondary Education for All: A New Drive	Cmdnd 604 <i>HMSO</i>	1959		9
The Supply of Teachers in the 1960s	<i>HMSO</i>	1958		9
Technical Education	Cmd 9703 <i>HMSO</i>	1956	1	6
The Training of Teachers (Ministry of Education Pamphlet No. 34)	<i>HMSO</i>	1957	1	9
University Grants Committee				
Annual Return from Universities and University Colleges				
For 1957-58	Cmdnd 832 <i>HMSO</i>	1959	5	0
University Development 1952-57	Cmdnd 534 <i>HMSO</i>	1958	5	6
Education in Britain				
COI Reference Pamphlet RF.P.3798	<i>HMSO</i>	1958	3	6
Technological Education in Britain				
COI Reference Pamphlet RF.P.4265	<i>HMSO</i>	1959	3	0
Education and Training for Industry and Commerce in Britain				
Reference Paper R.4261	<i>COI</i>	1959		free*
Students from the United Kingdom Dependencies in the United Kingdom and Irish Republic	Reference Paper R.4596 <i>COI</i>	1960		free*
Universities in Britain	Reference Paper R.4124 <i>COI</i>	1959		free*

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BREW, J. MACALISTER. Youth and Youth Groups	<i>Faber &amp; Faber</i>	1957	18	0
EAGER, W. McG. Making Men: The History of Boys' Clubs and Related Movements in Great Britain	<i>University of London Press</i>	1953	20	0
JEPHCOTT, PEARL. Some Young People	<i>Allen &amp; Unwin</i>	1954	12	6
JORDAN, G. W. and FISHER, E. M. Self-Portrait of Youth	<i>Heinemann</i>	1955	12	6
KUENSTLER, P. H. K., <i>Compiler</i> . Youth Work in England: Extracts from Ministry of Education and other publications relating to Statutory and Voluntary Youth Work	<i>University of London Press</i>	1954	4	0
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 1958-59	<i>Duke of Edinburgh's Award Office</i>	1960	5	0
Purpose and Content of the Youth Service	<i>HMSO</i>	1945	4	
Youth Service in England and Wales [Albemarle Report]				
Cmnd 929	<i>HMSO</i>	1960	6	0
Youth Services in Britain [ <i>prepared by COI for the Foreign Office</i> ]				
COI		1959	free	
Youth Services in Britain	Reference Paper R.4200	1959	free*	

**VI. HOUSING AND PLANNING**

Annual Report				
Ministry of Housing and Local Government				
For 1959	Cmnd 1027 <i>HMSO</i>	1960	10	6
<b>Housing</b>				
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
Houses: The Next Step	Cmd 8996 <i>HMSO</i>	1953	9	
Housing in England and Wales: 1951 Census Housing Report	<i>HMSO</i>	1956	60	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	Reference Pamphlet RF.P.4500	1960	free*	
<b>Town and Country Planning</b>				
ABERCROMBIE, Sir PATRICK. Town and Country Planning. 3rd edn	<i>Oxford University Press</i>	1960	7	6

		s.	d.
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
BROWN, H. J., <i>Editor</i> . Practical Points on Planning Law	<i>Sweet &amp; Maxwell</i>	1951	16 6
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 &amp; 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
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	For 1958-59 <i>HMSO</i>	1959	22 6
Scotland	For 1959-60 <i>HMSO</i>	1960	8 0
National Parks Commission	For 1958-59 <i>HMSO</i>	1959	6 0
Nature Conservancy	For 1958-59 <i>HMSO</i>	1959	6 6
First Ten Years: Report of the Nature Conservancy	<i>HMSO</i>	1959	1 6
New Towns in Britain	<i>COI</i>	1959	free
The New Towns Grow [ <i>prepared by the Ministry of Housing and Local Government and COI</i> ]	<i>COI</i>	1957	free
Town and Country Planning in Britain	<i>COI Reference Pamphlet RF.P.4178 HMSO</i>	1959	2 3

## VII. 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 1960 <i>Carey Kingsgate Press</i>	1960	17 6
Catholic Directory, 1960	<i>Burns, Oates &amp; Washbourne</i>	1960	20 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 of the Church of England, 1960. For the Church Assembly	<i>Society for Promoting Christian Knowledge</i>	1960	30 0
CHURCH OF IRELAND. The Irish Church Directory and Year Book for 1959	<i>Church of Ireland Printing &amp; Publishing Company</i>	1959	10 0
CHURCH OF SCOTLAND. Year Book	For 1960 <i>Church of Scotland Committee of Publications</i>	1960	5 0
CHURCH OF WALES. Official Handbook 1959	<i>Representative Body of the Church in Wales, Cardiff</i>	1959	15 0
EPISCOPAL CHURCH IN SCOTLAND. The Scottish Episcopal Church Year Book and Directory	For 1960-61 <i>Representative Church Council of the Episcopal Church in Scotland</i>	1960	8 6



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The Lambeth Conference, 1958 <sup>1</sup>	<i>Society for Promoting Christian Knowledge</i>	1958	7	6
MAYFIELD, GUY. The Church of England	<i>Oxford University Press</i>	1958	18	0
METHODIST CHURCH. Minutes of the Annual Conference of the Methodist Church, 1959	<i>Methodist Publishing House</i>	1959	15	0
PRESBYTERIAN CHURCH OF ENGLAND. Official Handbook				
For 1959-60	<i>Presbyterian Church of England</i>	1959	5	0
PRESBYTERIAN CHURCH OF WALES. Year Book				
For 1959	<i>Presbyterian Church of Wales</i>	1959	3	6
SALVATION ARMY. Year Book				
For 1960	<i>Salvationist Publishing &amp; Supplies</i>	1960	5	0
UNITARIAN AND FREE CHRISTIAN CHURCHES. Year Book of the General Assembly	For 1959 <i>Lindsey Press</i>	1959	5	0
UNITED FREE CHURCH OF SCOTLAND. Handbook				
For 1960	<i>United Free Church of Scotland</i>	1960	2	6

## VIII. PROMOTION OF THE SCIENCES AND THE ARTS

### 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. 59th edn	<i>Allen &amp; Unwin</i>	1958	35	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
CROWTHER, J. G. Nuclear Energy in Industry	<i>Newnes</i>	1956	17	6
HARTLEY, Sir HAROLD. The Royal Society: Its Origins and Founders	<i>Royal Society</i>	1960	35	0
HORDER, Lord. Fifty Years of Medicine	<i>Duckworth</i>	1953	5	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. Calder Hall: The Story of Britain's First Atomic Power Station	<i>Methuen</i>	1956	5	0
JEFFERSON, S. Editor. 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, 1960	<i>Royal Society</i>	1960	21	0
TURRILL, W. B. The Royal Botanic Gardens, Kew, Past and Present	<i>Jenkins</i>	1959	25	0
Atomic Energy Research	<i>United Kingdom Atomic Energy Authority</i>	1960	free	

<sup>1</sup> Also in an abridged edition, price 1s. 6d.

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Combining for Research: The Work of the Industrial Research Associations in the Government Scheme	<i>DSIR</i>	1956	free	
Annual Reports				
Advisory Council on Scientific Policy				
For 1958-59 Cmnd 893	<i>HMSO</i>	1959	1	0
Agricultural Research Council For 1958-59 Cmnd 1069	<i>HMSO</i>	1960	9	0
Atomic Energy Authority Sixth Report For 1959-60	<i>HMSO</i>	1960	5	0
Government Chemist, April 1958-Dec. 1959	<i>HMSO</i>	1960	3	6
Medical Research Council For 1958-59 Cmnd 1082	<i>HMSO</i>	1960	15	6
Meteorological Office For 1959-60	<i>HMSO</i>	1960	4	0
National Chemical Laboratory For 1959	<i>HMSO</i>	1960	4	6
National Physical Laboratory For 1959	<i>HMSO</i>	1960	8	0
National Research Development Corporation For 1958-59	<i>HMSO</i>	1959	1	3
Research Council of the Department of Scientific and Industrial Research For 1959 Cmnd 1049	<i>HMSO</i>	1960	4	6
Research for Industry, 1959	<i>HMSO</i>	1960	8	0
Industrial Research and Development Expenditure, 1958	<i>HMSO</i>	1960	1	3
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, 1959-60	<i>HMSO</i>	1960	25	0
Nuclear Energy in Britain COI Reference Pamphlet RF.P.4192	<i>HMSO</i>	1959	3	0
Some British Records and Achievements in Science, Industry and Technology Reference Booklet RF.P.3984	<i>COI</i>	1959	free*	
Industrial Research in Britain Reference Paper R.4631	<i>COI</i>	1960	free*	
<b>The Arts</b>				
ARTS COUNCIL OF GREAT BRITAIN. The First Ten Years. Eleventh Annual Report 1955-56	<i>Arts Council</i>	1956	2	6
— The Struggle for Survival. Fourteenth Annual Report 1958-59	<i>Arts Council</i>	1959	2	6
BRITISH COUNCIL. Annual Report 1958-59	<i>British Council</i>	1959	1	0
CALOUSTE GULBENKIAN FOUNDATION. Help for the Arts: Report to the Foundation	<i>The Foundation</i>	1959	3	0
Government and the Arts in Britain	<i>HMSO</i>	1958	2	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 &amp; Hudson</i>	1955	126	0
Museum Calendar <i>Annual</i>	<i>Museums Association</i>	1960	6	0
The National Gallery, July 1958 to December 1959	<i>National Gallery</i>	1960	5	0
ROTHENSTEIN, Sir JOHN. An Introduction to English Painting	<i>Cassell</i>	1952	21	0
— Modern English Painters: Lewis to Moore	<i>Eyre &amp; Spottiswoode</i>	1956	35	0
Who's Who in Art. 10th edn	<i>Art Trade Press</i>	1960	60	0
Annual Reports				
Ancient Monuments Boards for England, Scotland and Wales For 1959	<i>HMSO</i>	1960	1	6
Historic Buildings Council for England For 1959	<i>HMSO</i>	1960	1	3
Historic Buildings Council for Scotland For 1959	<i>HMSO</i>	1960	9	

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Annual Reports ( <i>contd.</i> )				
Historic Buildings Council for Wales	For 1959 <i>HMSO</i>	1960		6
Royal Fine Art Commission	For 1958 Cmnd 909 <i>HMSO</i>	1959	1	3
Tate Gallery	For 1958-59 <i>HMSO</i>	1960	4	0
First Report of the Royal Fine Art Commission for Scotland	Cmnd 982 <i>HMSO</i>	1960	1	3
Standing Commission on Museums and Galleries	Report for 1954-58 <i>HMSO</i>	1959	4	0
<i>Literature</i>				
British National Bibliography. Annual for 1959	<i>The Council of the British National Bibliography</i>	1960	190	0
Library Association Year Book 1960	<i>Library Association</i>	1960	21	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
<i>Drama</i>				
FINDLATER, R. The Future of the Theatre	<i>Fabian Society</i>	1959	2	6
The Stage Year Book, 1960 <i>Annual</i>	<i>The Stage</i>	1960	13	6
Who's Who in the Theatre, edited by John Parker, 12th rev. edn	<i>Pitman</i>	1957	105	0
<i>Films</i>				
FIELD, MARY. Children and Films	<i>Dunfermline, Carnegie United Kingdom Trust</i>	1954	10	6
MANVELL, ROGER. The Film and the Public	<i>Penguin Books</i>	1955	3	6
POLITICAL AND ECONOMIC PLANNING. The British Film Industry: A Report on the History and Organisation of the Industry	<i>PEP</i>	1952	18	0
——— The British Film Industry, 1958	<i>PEP</i>	1958	5	0
ROTHA, PAUL and others. Documentary Film. 3rd edn	<i>Faber &amp; Faber</i>	1952	42	0
<i>Annual Reports</i>				
British Film Fund Agency	For 1958-59 <i>HMSO</i>	1960		6
Cinematograph Films Council	For 1959-60 <i>HMSO</i>	1960		6
National Film Finance Corporation (and Statement of Accounts)	For 1959-60 Cmnd 1096 <i>HMSO</i>	1960	1	3
The Cinema in Britain	Reference Paper R.3645 <i>COI</i>	1957		free*
<i>Music, Opera and Ballet</i>				
Ballet Annual 1960, edited by Arnold L. Haskell	<i>Black</i>	1959	30	0
British Federation of Music Festivals Year Book	<i>British Federation of Music Festivals</i>	1960	6	0
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	40	0

## IX. THE NATIONAL ECONOMY

CAIRNCROSS, A. K., <i>Editor</i> . The Scottish Economy: A Statistical Account of Scottish Life by Members of the Staff of Glasgow University	<i>Cambridge University Press</i>	1954	30	0
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CLAPHAM, Sir JOHN. A Concise Economic History of Britain: From Earliest Times to 1750	Cambridge University Press	1949	25	0
——— An Economic History of Modern Britain. 3 vols	Cambridge University Press	1938	165	0
COURT, W. H. B. A Concise Economic History of Britain from 1750 to Recent Times	Cambridge University Press	1954	25	0
DEVONS, E. An Introduction to British Economic Statistics	Cambridge University Press	1956	22	6
JONES, G. P. and POOL, A. G. A Hundred Years of Economic Development in Great Britain 1840-1940. 2nd edn	Duckworth	1948	21	0
LEWIS, W. ARTHUR. Economic Survey 1919-1939	Allen & Unwin	1953	18	0
STAMP, L. DUDLEY and BEAVER, S. H. The British Isles: a Geographic and Economic Survey	Longmans	1954	46	6
WORSWICK, G. D. N. and others. The British Economy, 1945-50	Oxford University Press	1952	35	0
YOUNGSON, A. J. The British Economy 1920-1957	Allen & Unwin	1960	28	0
Economic Review <i>Bi-Monthly from January 1959</i>	National Institute of Economic and Social Research		8	0
Official Histories of the Second World War: United Kingdom: Civil Series. British War Economy, by W. K. Hancock and M. M. Gowing	Longmans & HMSO	1949	30	0
Annual Abstract of Statistics. No. 96, 1959	HMSO	1959	21	0
Council on Prices, Productivity and Incomes, First Report [Cohen Council]	HMSO	1958	2	0
——— Second Report	HMSO	1958	2	0
——— Third Report	HMSO	1959	2	0
Economic Survey <i>Annual from 1947</i> For 1960 Cmnd 976	HMSO	1960	3	0
Economic Survey of Northern Ireland (Report prepared by K. S. Isles and N. Cuthbert)	Belfast, HMSO	1957	35	0
Enquiry into Household Expenditure in 1953-54	HMSO	1957	37	6
National Income and Expenditure of the United Kingdom 1938-46	Cmd 7099 HMSO	1947	1	0
1959 (prepared by the Central Statistical Office)	HMSO	1959	6	0
Digest of Scottish Statistics <i>Twice Yearly from April 1953</i>	HMSO		5	0
Digest of Statistics: Northern Ireland <i>Twice Yearly from March 1954</i>	Belfast, HMSO		7	6
Digest of Welsh Statistics <i>Annual from 1954</i>	HMSO		7	0
Monthly Digest of Statistics	HMSO		5	6

## X. INDUSTRY

### Organisation and Production

ALLEN, G. C. British Industries and their Organisation. 4th edn	Longmans	1959	25	0
BRITISH STANDARDS INSTITUTION. Year Book	BSI	1960	15	0
BURN, DUNCAN, <i>Editor</i> . The Structure of British Industry: A Symposium. Vol. I	Cambridge University Press	1958	45	0
Vol. II	Cambridge University Press	1958	50	0
GOODMAN, L. LANDON. Man and Automation	Penguin Books	1957	3	6
OAKLEY, C. A., <i>Editor</i> . Scottish Industry: An Account of what Scotland makes and where she makes it	Scottish Council	1953	25	0
POLITICAL AND ECONOMIC PLANNING. Industrial Trade Associations: Activities and Organisations	Allen & Unwin	1957	30	0

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ROBSON, W. A. Nationalised Industry and Public Ownership	<i>Allen &amp; 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
Report of the Monopolies and Restrictive Practices Commission.				
Collective Discrimination: A Report on Exclusive Dealing, Collective Boycotts, Aggregated Rebates and Other Discriminatory Trade Practices	Cmd 9504 <i>HMSO</i>	1955	3	6
Report on the Census of Production for 1954				
Introductory Notes	<i>HMSO</i>	1956	1	0
12 Volumes <sup>1</sup>	<i>HMSO</i>	1957	1	6
			to	
		1958	3	6
Index of Products	<i>HMSO</i>	1959	3	6
Summary Tables, Part I	<i>HMSO</i>	1958	9	0
Summary Tables, Part II	<i>HMSO</i>	1959	7	0
Summary Tables, Part III	<i>HMSO</i>	1959	8	0
Report on the Census of Production for 1958				
Introductory Notes	<i>HMSO</i>	1960	3	0
12 Volumes <sup>1</sup> [ <i>in progress</i> ]	<i>HMSO</i>			
Review of Highland Policy	Cmnd 785 <i>HMSO</i>	1959		9
Industry and Employment in Scotland and Scottish Road Report				
<i>Annual</i>	For 1959 Cmnd 1045 <i>HMSO</i>	1960	4	6
Wales and Monmouthshire: Report on Developments and Government Action 1959	Cmnd 961 <i>HMSO</i>	1960	6	0
Nationalised Industries in Britain	Reference Paper R.4298 <i>COI</i>	1960	free*	

**Agriculture**

ALLEN, C. R. Agricultural Marketing Policies	<i>Blackwell</i>	1959	42	0
BRACEY, H. E. English Rural Life	<i>Routledge</i>	1959	30	0
COOPER, D. W. Farmers' Co-operation in England				
	<i>Agricultural Co-operation Association Ltd.</i>	1954	1	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
HIRSCH, G. P. and HUNT, K. E. British Agriculture: Structure and Organisation				
For the National Federation of Young Farmers' Clubs	<i>Evans</i>	1958	3	6
POLITICAL AND ECONOMIC PLANNING. Agriculture and Land Use				
	<i>PEP</i>	1957	2	6
SYKES, FRANK. Living from the Land	<i>Geoffrey Bles</i>	1957	21	0
SYMON, J. A. Scottish Farming Past and Present	<i>Oliver &amp; Boyd</i>	1959	42	0
WATSON, Sir JAMES SCOTT and MORE, J. A. Agriculture: The Science and Practice of British Farming. 10th edn	<i>Oliver &amp; Boyd</i>	1956	31	6
WILLIAMS, H. T., <i>Editor</i> . Principles for British Agriculture Policy				
	<i>Oxford University Press</i>	1960	18	0
Official Histories of the Second World War: United Kingdom: Civil Series. Agriculture, by Keith A. H. Murray				
	<i>Longmans &amp; HMSO</i>	1956	30	0
Agricultural Improvement Council. Fourth Report 1956-59	<i>HMSO</i>	1960	2	0

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Agricultural Research Service	<i>HMSO</i>	1953	2	6
Agricultural Statistics, United Kingdom 1958-59	<i>HMSO</i>	1960	3	6
Annual Reports				
Agricultural Marketing Schemes	For 1958-59 <i>HMSO</i>	1960	6	0
Animal Health Services in Great Britain	For 1958 <i>HMSO</i>	1960	6	0
Department of Agriculture for Scotland				
Agriculture in Scotland 1959	Cmdnd 1028 <i>HMSO</i>	1960	6	0
National Food Survey Committee: Domestic Food Consumption and Expenditure 1957	<i>HMSO</i>	1959	8	6
Annual Review and Determination of Guarantees				
For 1960	Cmdnd 970 <i>HMSO</i>	1960	1	3
Crofters Commission: Report	For 1959 <i>HMSO</i>	1960	2	0
Crofting Conditions: Commission of Enquiry	Cmd 9091 <i>HMSO</i>	1954	5	6
Guides to Official Sources, No. 4. Agricultural and Food Statistics	<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	Cmdnd 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 1957-58	<i>HMSO</i>	1959	6	6
Farming Britain, by A. N. Duckham	<i>COI</i>	1959		free*
Rural Industries in Britain	Reference Paper R.3334 <i>COI</i>	1956		free*
<b>Fisheries</b>				
Fisheries Year Book and Directory 1960	<i>British Continental Trade Press</i>	1960	20	0
Trout in Scotland	<i>HMSO</i>	1960	6	0
Annual Reports				
Fisheries of Scotland	For 1959 Cmdnd 1097 <i>HMSO</i>	1960	5	6
Herring Industry Board	For 1959 Cmdnd 1050 <i>HMSO</i>	1960	3	0
White Fish Authority (and Accounts)	For 1959-60 <i>HMSO</i>	1960	3	0
Annual Statistical Tables				
Scottish Sea Fisheries	For 1959 <i>HMSO</i>	1960	5	0
Sea Fisheries	For 1959 <i>HMSO</i>	1960	4	0
<b>Forestry</b>				
EDLIN, H. L. England's Forests	<i>Faber &amp; Faber</i>	1958	30	0
The Forestry Commission in Scotland	<i>Forestry Commission</i>	1953		free
Annual Reports				
Forestry Commissioners	For 1958-59 <i>HMSO</i>	1960	5	6
Forest Research	For 1957-58 <i>HMSO</i>	1959	9	6
Britain's Forests [13 <i>booklets</i> ]	<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 [9 <i>booklets</i> ]	<i>HMSO</i>	1946	1	6
		to		to
		1958	5	0



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Capital Investment in the Coal, Gas and Electricity Industries <i>Annual</i>	For 1960 Cmnd 993 <i>HMSO</i>	1960	6
Ministry of Power Statistical Digest <i>Annual</i>	For 1959 <i>HMSO</i>	1960	30 0
Report of the Committee on National Policy for the Use of Fuel and Power Resources [Ridley Report]	Cmd 8647 <i>HMSO</i>	1952	6 6
<i>Coal</i>			
NATIONAL COAL BOARD. British Coal, The Rebirth of an Industry	<i>NCB</i>	1957	free
——— Investing in Coal: Progress and Prospects under the Plan for Coal	<i>NCB</i>	1956	3 0
——— 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 &amp; Unwin</i>	1951	12 6
Annual Report and Accounts			
National Coal Board			
Vol. I. Report	For 1959 <i>HMSO</i>	1960	3 6
Vol. II. Accounts and Statistical Tables	For 1959 <i>HMSO</i>	1960	9 0
Coal Mining: Report of the Technical Advisory Committee [Reid Report]	Cmd 6610 <i>HMSO</i>	1945	3 6
<i>Petroleum</i>			
LONGHURST, HENRY C. Adventure in Oil	<i>Sidgwick &amp; 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>	1960	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
<i>Electricity and Gas Supply</i>			
THE ELECTRICITY COUNCIL. Power for the Future	<i>Electricity Council</i>	1959	free
THE 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 &amp; Unwin</i>	1952	20 0
SLEEMAN, J. F. British Public Utilities	<i>Pitman</i>	1953	20 0
Annual Reports and Accounts			
Central Electricity	For 1958-59 <i>HMSO</i>	1959	10 6
Gas Council	For 1958-59 <i>HMSO</i>	1959	10 0
North of Scotland Hydro-Electric Board	For 1959 <i>HMSO</i>	1960	5 6
The Gas Industry: Report of the Committee of Enquiry [Heyworth Report]	Cmd 6699 <i>HMSO</i>	1945	2 0
The Nuclear Power Programme	Cmnd 1083 <i>HMSO</i>	1960	4
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.4192 <i>HMSO</i>		1959	3 0

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<b>Water Supply</b>		
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 &amp; Hall</i>	1950	30 0
Annual Reports		
British Rainfall	For 1956 <i>HMSO</i>	1959 27 6
Department of Health for Scotland	For 1959 Cmnd 983 <i>HMSO</i>	1960 7 0
Ministry of Housing and Local Government	For 1959 Cmnd 1027 <i>HMSO</i>	1960 10 6
Surface Water Year Book of Great Britain 1957-58	<i>HMSO</i>	1959 15 0
Water Pollution Research, 1959	<i>HMSO</i>	1960 7 0
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
River Boards: Guide to their Powers and Functions	<i>HMSO</i>	1950 3 0
Standing Technical Committee on Synthetic Detergents, Third Progress Report	<i>HMSO</i>	1960 1 6
<b>Construction</b>		
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 Report		
Building Research, 1958	<i>HMSO</i>	1959 5 6
Building Research Station Digest <i>monthly</i>	<i>HMSO</i>	4
Building Science Abstracts <i>monthly</i>	<i>HMSO</i>	3 0
National Building Studies series (Bulletins, Special Reports and Research Papers)	<i>HMSO</i>	1948 9
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	1960	21 0
<b>Manufacturing Industries</b>		
ASSOCIATION OF BRITISH CHEMICAL MANUFACTURERS. Report on the British Chemical Industry 1949	<i>The Association</i>	1949 5 0
— Supplement 1953	<i>The Association</i>	1953 1 0
BURN, D. L. Economic History of Steelmaking 1867-1939 <i>Cambridge University Press</i>	1940	27 6
DONNITHORNE, AUDREY G. British Rubber Manufacturing <i>Duckworth</i>	1958	25 0
DUNNING, J. H. American Investment in British Manufacturing Industry <i>Allen &amp; 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 &amp; Unwin</i>	1959	25 0
ROBSON, R. The Cotton Industry in Britain <i>Macmillan</i>	1957	60 0
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SOCIETY OF MOTOR MANUFACTURERS AND TRADERS. The Motor Industry of Great Britain	<i>SMMT</i>	1960	55	0
STURMEY, S. C. The Economic Development of Radio	<i>Duckworth</i>	1958	30	0
Development of the Iron and Steel Industry 1953-58	<i>HMSO</i>	1955	2	6
Special Report, 1957	<i>HMSO</i>	1957	4	6
Reorganisation of the Cotton Industry	Cmnd 744 <i>HMSO</i>	1959		9
Report of the Iron and Steel Board	For 1959 <i>HMSO</i>	1960	5	0
Post-War Industrial Progress in the United Kingdom				
	Reference Paper R.3908 <i>COI</i>	1958	free*	
United Kingdom Agricultural Engineering Industry				
	Reference Paper R.4126 <i>COI</i>	1959	free*	
United Kingdom Motor Vehicle Industry				
	Reference Paper R.3694 <i>COI</i>	1958	free*	
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ROLT, L. T. C. Red for Danger	<i>Bodley Head</i>	1955	16 0
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BUCHANAN, C. D. Mixed Blessing: The Motor in Britain	<i>Hill</i>	1958	30 0
STRONG, L. A. G. The Rolling Road	<i>Hutchinson</i>	1956	30 0
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Volume I	<i>Putnam</i>	1959	63 0
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KAY, F. G. <i>Royal Mail. 2nd edn</i>	<i>Rockliff</i>	1955	10	0
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ARMSTRONG, F. E. <i>The Book of the Stock Exchange. 5th edn</i>	<i>Pitman</i>	1957	30	0
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CLAPHAM, Sir JOHN. <i>The Bank of England: A History, 1694-1914. 2 vols</i>	<i>Cambridge University Press</i>	1944	63	0
DACEY, W. MANNING. <i>The British Banking Mechanism. 2nd edn</i>	<i>Hutchinson</i>	1958	18	0
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HOBSON, Sir OSCAR. <i>How the City Works. 6th edn</i>	<i>News Chronicle</i>	1960	8	6
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Insurance	<i>Oxford University Press</i>	1960	8	6
SAYERS, R. S. <i>Modern Banking. 5th edn</i>	<i>Oxford University Press</i>	1960	25	0

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Commissioners of Customs and Excise	For 1958-59 Cmnd 912	HMSO	1960	9 6
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	COI Reference Pamphlet RF.P.4436	HMSO	1960	3 6
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BAREAU, PAUL. The Future of the Sterling System				
	<i>The Institute of Economic Affairs</i>		1958	5 0
British Travel and Holidays Association Annual Report				
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CLARKE, WILLIAM M. The City's Invisible Earnings				
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POLITICAL AND ECONOMIC PLANNING. Trade Fairs and Exhibitions				
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Assistance from the United Kingdom to Overseas Development				
	Cmnd 974	HMSO	1960	1 0
Customs and Excise Tariff of the United Kingdom		HMSO	1958	12 6
The European Free Trade Association		HMSO	1959	2 0
United Kingdom Balance of Payments	<i>Twice Yearly</i>			
1946-57 (No. 2)		HMSO	1959	10 0
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Accounts Relating to the Trade and Navigation of the United Kingdom	<i>Monthly</i>			
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Trade Fairs and Exhibitions in the United Kingdom			s. d.
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CAPLIN, ROBERT S. Advertising: A General Introduction	<i>Business Publications</i>	1959	15 0
JEFFERYS, J. B. Retail Trading in Britain 1850-1950	<i>Cambridge University Press</i>	1954	60 0
POLITICAL AND ECONOMIC PLANNING. Consumer Protection and Enlightenment	<i>PEP</i>	1960	3 6
STACEY, N. and WILSON, A. The Changing Pattern of Distribution	<i>Business Publications/Batsford</i>	1958	45 0
Co-operative Independent Commission Report	<i>Co-operative Union</i>	1958	6 8
Census of Distribution and Other Services 1950			
Vol. I. Retail and Service Trades: Area Tables	<i>HMSO</i>	1953	7 6
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Census of Distribution and Other Services 1957	<i>HMSO</i>	1959	5 0
Interim Report of the Committee on Consumer Protection	<i>Cmnd 1011 HMSO</i>	1960	1 0
Consumer Protection and Guidance in the United Kingdom	Reference Paper R.4031 <i>COI</i>	1959	free*

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CHISHOLM, C. Communication in Industry	<i>Business Publications</i>	1955	35 0
DEPARTMENT OF SOCIAL SCIENCE UNIVERSITY OF LIVERPOOL. The Dock Worker	<i>University of Liverpool Press</i>	1955	17 6
FLANDERS, ALLAN. Trade Unions	<i>Hutchinson</i>	1952	8 6
— and CLEGG, H., <i>Editors</i> . The System of Industrial Relations in Great Britain	<i>Blackwell</i>	1954	30 0
HEGINBOTHAM, H. The Youth Employment Service	<i>Methuen</i>	1951	8 6
NATIONAL DOCK LABOUR BOARD. Annual Report and Accounts			
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NATIONAL INSTITUTE OF INDUSTRIAL PSYCHOLOGY. The Foreman	<i>Staples</i>	1951	12 6
— Joint Consultation in British Industry	<i>Staples</i>	1952	21 0
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ROYAL SOCIETY FOR THE PREVENTION OF ACCIDENTS. Building Regulations Handbook. 5th edn	<i>RSPA</i>	1959	10 0
SILBERSTON, D. M. Youth in a Technical Age	<i>Parrish</i>	1959	21 0
THOMPSON, LAURENCE. The Challenge of Change	<i>Oxford University Press</i>	1957	5 0
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Automation: Report on the Technical Trends and their Impact on Management and Labour		<i>HMSO</i>	1956	6 0
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Employment Policy	Cmd 6527	<i>HMSO</i>	1944	1 0
Industrial Relations Handbook, rev. edn		<i>HMSO</i>	1953	5 0
Positive Employment Policies		<i>HMSO</i>	1958	1 6
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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 1953-56		<i>HMSO</i>	1956	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
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Time Rates of Wages and Hours of Labour		<i>HMSO</i>	1960	16 0
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Ministry of Labour Gazette <i>Monthly</i>		<i>HMSO</i>		2 0
Labour Relations and Working Conditions in Britain	COI Reference Pamphlet RF.P.4629	<i>HMSO</i>	1960	<i>not yet priced</i>
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BRITISH BROADCASTING CORPORATION. British Broadcasting: A Bibliography		<i>BBC</i>	1954	1 0
——— BBC Handbook 1960		<i>BBC</i>	1960	6 0
——— The BBC Television Service: A Technical Description. 3rd edn		<i>BBC</i>	1952	2 6
CROZIER, MARY. Broadcasting	<i>Oxford University Press</i>		1958	7 6
GORHAM, MAURICE. Broadcasting and Television since 1900	<i>Dakers</i>		1952	
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The Public and the Programmes	<i>BBC</i>	1959	8 6
SIMON OF WYTHENSHAWE, <i>Lord</i> . The BBC from Within	<i>Gollancz</i>	1953	16 0
Annual Reports and Accounts British Broadcasting Corporation			
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Independent Television Authority	For 1958-59 <i>HMSO</i>	1959	3 6
Copy of a New Charter of Incorporation Granted to the BBC			
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Copy of the Licence granted on April 6, 1955 by H.M. Postmaster General to the Independent Television Authority			
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Memorandum on Television Policy	<i>Cmd 9005 HMSO</i>	1953	4
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Report of the Broadcasting Committee 1949	<i>Cmd 8116 HMSO</i>	1951	6 6
Appendix H. Memoranda Submitted to the Committee			
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Reference Paper R.3946	<i>COI</i>	1958	free*

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GENERAL COUNCIL OF THE PRESS. The Press and the People: Sixth Annual Report	<i>The Council</i>	1959	2 0
HERD, HAROLD. The March of Journalism: The Story of the British Press from 1622 to the Present Day	<i>Allen &amp; 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 &amp; Technics</i>	1949	7 6
POLITICAL AND ECONOMIC PLANNING. Balance Sheet of the Press			
	<i>PEP</i>	1955	2 6
——— Ownership of the Press	<i>PEP</i>	1955	2 6
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——— 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
WILLIAMS, FRANCIS. Dangerous Estate	<i>Longmans</i>	1957	24 0
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Kemsley Manual of Journalism. 2nd edn	<i>Cassell</i>	1954	25 0
The National Readership Survey			
	<i>Institute of Practitioners in Advertising</i>	1959	210 0
Newspaper Press Directory <i>Annual</i>	<i>Benn Bros.</i>	1960	50 0
Willing's Press Guide 1960 <i>Annual</i>	<i>Willing's Press Service</i>	1960	40 0
Writers' and Artists' Year Book 1960 <i>Annual</i>	<i>Black</i>	1959	10 6



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Report of the Royal Commission on the Press 1947-49			
	Cmd 7700 <i>HMSO</i>	1949	9 6
Training of Journalists	<i>UNESCO/HMSO</i>	1958	10 0
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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 &amp; Unwin</i>	1948	15 0
GREEN, GEOFFREY. The Official History of the F.A. Cup	<i>Heinemann</i>	1960	21 0
——— Soccer: The World Game	<i>Phoenix House</i>	1953	12 6
LONSDALE, Lord, and PARKER, ERIC, <i>Editors</i> . The Lonsdale Library [30 vols. on various sports]	<i>Seeley Service</i>	1929	15 0
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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 1960 <i>AAA</i>	1960	10 6
Amateur Swimming Association Handbook	<i>ASA</i>	1960	6 0
Badminton Association of England Annual Handbook	<i>BA of E</i>	1959	2 6
English Bowling Association Official Year Book	<i>EBA</i>	1959	2 6
Football Association Year Book	For 1960-61 <i>Heinemann</i>	1960	3 6
The Golfers Handbook 1960	<i>Golfers Handbook Edinburgh</i>	1960	30 0
Horse and Hound Year Book 1959-60	<i>Odhams</i>	1959	17 6
Lawn Tennis Association Handbook	<i>LTA</i>	1960	7 6
Playfair Rugby Football	For 1960-61 <i>Playfair Books</i>	1960	7 6
Records and Champions. Eagle Series	For 1959 <i>Hulton Press</i>	1959	6 0
Royal Automobile Club Guide and Handbook	<i>RAC</i>	1960	12 6
Ruff's Guide to the Turf	For 1960 <i>Sporting Life</i>	1960	25 0
Wisden's Cricketers' Almanack	<i>Sporting Handbooks</i>	1960	21 0
Yachting World Handbook 1960	<i>Iliffe</i>	1960	42 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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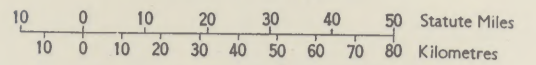
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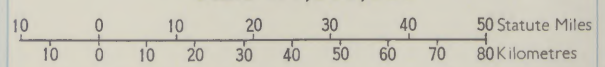


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