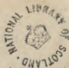
1/6 ABS.1.79.88

£35

Also printed in London &
Dublin.

Jane Hay Paterson
from
A Friend



A PICTURE OF THE SEASONS;

WITH

ANECDOTES AND REMARKS

ON

EVERY MONTH IN THE YEAR.

EDINBURGH :

Printed for Peter Hill and Co. High Street.

1819.

NATIONAL LIBRARY OF SCOTLAND
B
2 AP
1979

JANUARY.

Stern winter's icy breath, intensely keen,
Now chills the blood, and withers every green;
Bright shines the azure sky, serenely fair,
Or driving snows obscure the turbid air.

A YEAR is a natural period, and the first imperfect year of ancient times must, no doubt, have arisen from observing the regular changes of heat and cold, of the leafing, flowering, and fruiting, of the various tribes of vegetables; and the agreement of these appearances with the laying and hatching of birds, and the production of the young of quadrupeds. This way of reckoning, however, was subject to so many variations, that it was soon necessary to make choice of some more constant occurrence by which to mark the length of the year.

The ancients began their year in March, and it may appear singular, that modern civilized nations should choose to commence their year, at a period when nature lies

almost dormant, in preference to that season, when the race of vegetables and animals is actually renewed. In defence of the present custom, it may, however, be said, that the lengthening of the day, as it is the chief cause, so it is in fact the commencement of spring.

So little influence, however, has this change at first, that the month of January is usually found to be that in which the cold is most severe; there being little or no frost in this country before the shortest day, conformably to the old saying, "as the days begin to lengthen, the frost begins to strengthen." The weather is commonly either bright dry frost, or fog and snow, with cold dark showers, about the close of the month.

It used formerly to be a subject of much dispute among natural philosophers, whether frost was a substance, or merely the absence of a certain degree of heat. Thomson, in his Seasons, seems to be of the former opinion.

What art thou, Frost? and whence are thy keen stores
Derived, thou sacred, all-invading power,
Myriads of little salts, or hook'd or shap'd
Like double wedges, and diffus'd immense,
Through water, earth, and ether?

Modern philosophers have, however, very generally taken the oppoisite side of the question; the *little hooked salts*, which in frosty mornings are found floating in the atmosphere, or adhering to the surfaces of bodies, being found by experiment to be nothing more than small crystals of ice, and capable of being melted by heat into pure water.

The principal difficulty here is, how comes it to pass that water, when deprived of its heat, should occupy more space than it did before? for water, when frozen, is expanded, and hence ice is lighter than water, and swims upon it. If any one will observe the formation of ice, he will perceive, that it is composed of a number of needle-like crystals, that unite to each other, and that the space between these crystals is much more considerable than between the particles of water; and on this account water, when frozen, occupies more *space* than before, though it receives no increase of weight. It may be also mentioned, that, in the act of freezing, a quantity of air is intercepted and fixed in the ice, which generally appears to be full of bubbles. It is from this disposition in water that, if a bottle full of water hard

corked be set to freeze, the bottle will be broken for want of room for the expansion of the water while assuming its solid form. Water-pipes often burst from the same cause, and hoops fly off from barrels; and in the intense frosts of Canada, it has been found, from experiments made at Quebec, that cannons and bomb-shells filled with water, and the openings strongly plugged up, have in the course of a few hours been burst. This same property of water, when frozen, tends every year to diminish the bulk and height of the Alps and other lofty mountains: the different crevices become filled with water during the summer, either from rain or the melting of the snow, which is frozen during the winter, and, by its irresistible expansive power, separates huge masses of rock from the summits of the mountains, and rolls them into the valleys below, to the terror of the inhabitants: for nothing but a wood is able to stop their impetuous progress. In its more moderate and minute effects, the operation of this general law is productive of a very beneficial consequence to the husbandman; for the hard clods of the ploughed fields are loosened and broken to pieces, by the swelling of the water within

them, when frozen; hence the earth is crumbled and prepared for receiving the seed in spring.

In North America, the river Niagara tumbles down a precipice nearly fifty yards in height, and the quantity of water constantly falling is so great, that the foam or spray may be seen hovering, like a cloud, over the spot at the distance of fifty miles; in winter, the appearance of the waterfall is truly wonderful, the ice collects at the bottom in hills, and huge icicles, like the pillars of a large building, hang from the top of the fall, reaching nearly to the bottom.

Nothing, in fact, can be conceived more wonderful and striking than the effects of frost. To behold the liquid surface of the lake changed into a firm marble-like pavement; to see the rapid river arrested in the midst of its course; the headlong cascade, "whose idle torrents only *seem* to roar," converted into a cluster of bright pillars of the strangest forms; or to view the intricate, varied, and beautiful feathery frosting that forms on our windows during a winter's night; and all these effects produced by a rapid, silent, invisible power, cannot but strongly interest the observer.

Some of these appearances, indeed, are so familiar to us, that we cease to regard them; but it is only their being common that causes them to be overlooked, as is evident from the surprise and admiration which they excite in persons, who, having been born and brought up in the West-Indies, or other hot climates, shew the greatest surprise and pleasure upon the first sight of these appearances.

In the year 1739 there occurred the most severe winter ever known in these Countries. The cold was so intense, that the Thames in London, and the Liffey in Dublin, were frozen completely over, so that crouds of people walked with safety on the ice; fires were made, and joints of meat roasted for the people; so hard was the frost, that oaks of great size were split by it, the sap being turned to ice; beer and ale, and even wine, were frozen in the cellars into a hard mass of ice. In the year 1814 the winter was nearly as severe.

The cold in the more northern Countries is, however, far beyond what we experience here; in Russia, the rivers are covered with ice for five months of the year, and this is often three feet in thickness, so as to bear heavy laden carriages with safety.

The Empress Anne of Russia caused a palace to be built of ice: huge square blocks of solid ice were hewn, and being placed upon each other in regular courses, as of masonry, water was poured upon each course, which immediately froze hard, and cemented the whole together like mortar. Thus the walls were formed; the edifice was fifty-two feet long, sixteen feet broad, and twenty feet high; the walls were three feet thick. There were tables, chairs, and other furniture, cut out of solid ice. In front of the palace, there were pyramids, statues, and even some cannon, all made of of ice; one of the cannon was loaded with gunpowder and fired off. At night, this palace was brilliantly lighted up with candles, and it had a beautiful appearance, being clear and shining, as if made of glass.

The Russians have a curious mode of preserving meat in winter; as soon as the cold weather comes on, they kill their sheep and oxen, and having cut up the carcases, expose the joints to the severe cold of the season; the meat is immediately frozen hard, and, being packed in snow, it will keep sweet and good the whole winter. When they want to use it, they plunge it into cold water, whereby it is thawed and rendered soft.

In the seas far to the north, there is still a more dreadful degree of cold; the ocean itself is frozen, and in parts it never thaws. Huge masses of ice collect together, forming immense floating islands and tracts, beyond which no ship can penetrate; it sometimes happens, that the vessel is surrounded by these fields of ice; and the unfortunate crew, having no means of escape, perish by the severity of the cold.

Snow is the water of the clouds frozen. On a close examination, it is found to be composed of icy darts or stars, united to each other, as all crystals of water are, whether they compose ice, snow, or hoar frost. Its whiteness is owing to the small particles into which it is divided. Ice, when pounded, becomes equally white. Snow is useful, by covering the plants, and protecting them from the severity of the frost; for it keeps them very dry, and, at a certain depth under the snow, the cold continues always of the same moderate kind. It is, however, a very fatal enemy to shrubs that grow in a *southern* exposure, for the heat of the sun at noon partially melts the snow, which, by the cold of the following night is converted into a mass of ice, and thus destroys the most nourishing

and hardy plants; and it has frequently been found, by experience, in severe winters, that those vegetables, which have been exposed to the rays of the sun, have been almost totally cut off, while those under a north shelter have sustained no injury.

The beauty of a country all clothed in new fallen snów is very striking.

> The cherish'd fields
> Put on their winter robe of purist white,
> 'Tis brightness all; save where the new snow melts
> Along the mazy current, Low the woods
> Bow their hoar heads; and ere the languid sun,
> Faint from the west, emits his evening ray,
> Earth's universal face, deep hid and chill,
> Is one wide dazzling waste, that buries deep
> The works of man.
>
> THOMSON.

Hail-stones are drops of rain suddenly frozen, so as to preserve their figure. They often fall in the warmer seasons of the year, as at all times the upper parts of the atmosphere are very cold.

Hoar-frost is dew, or mist, frozen. It adheres to every object on which it falls, and produces figures of incomparable beauty and elegance. Every twig and blade of grass is beset by it with innumerable glit-

tering pearly drops, or silvery plumage, beyond the skill of any artist to imitate.

Sometimes it happens, that a sudden shower of rain falls during a frost, and immediately turns to ice. A remarkable scene is then produced, which the following lines most beautifully describe.

> Ere yet the clouds let fall the treasur'd snow,
> Or winds begun through hazy skies to blow,
> At evening a keen eastern breeze arose,
> And the decending rain unsullied froze.
> Soon as the silent shades of night withdrew,
> The ruddy morn disclos'd at once to view
> The face of nature in a rich disguise,
> And brighten'd every object to my eyes:
> For ev'ry shrub, and ev ry blade of grass,
> And every pointed thorn, seem'd wrought in glass;
> In pearls and rubies rich, the hawthorns show,
> While through the ice the crimson berries glow.
>
> PHILIPS, *Lett. from Copenhagen.*

In such a case, prodigious mischief has been done in the woods by the breaking down of vast arms of trees, which were over-loaded by the weight of the incrusting ice; and even rooks, attempting to fly, have been taken, owing to their wings being frozen together, by the sleet that congealed as it fell.

The inclemency of the season is shewn by its effects on animals. Those which are called the *cold-blooded*, that is, where the whole of the blood does not circulate through the lungs, as the frog, the snake, and the lizard, are benumbed by it in their winter quarters, and continue in this death-like state till the return of warm weather. Others, as the dormouse, the marmot, and bear, sleep away the greater part of this uncomfortable period; while others, as the squirrel and field-mouse, which lay up stores of provision during the autumn, keep close in their retreats, sleeping a good deal during the frost, but, during the less severe part of the winter, being in an active state, have recourse to their hoards, for a supply of subsistence. But animals in a state of sleep require nourishment, though not in such large quantities as those which continue actively alive; the necessity of food being proportioned to the rapidity of the circulation of the blood. Since, however, in a state of torpor it is impossible to take in nourishment, these animals must perish, were it not for a store of food prepared and laid up within them, in the form of fat: for animals of this class become very fat before they retire to

their winter habitations, and come out again in the spring lean and emaciated, as is the case with the bear, marmot, &c. With respect to the cold-blooded animals, which do not grow fat, the continuance of their life is provided for by other means. All these animals are capable, during their active state, of supporting the want of food for a great length of time; at which period the beats of the heart, which make the blood circulate, amount to about sixty in a minute; but, during their *inactive* state, do not exceed the same number in the space of an hour: so that the beats of the heart, during the three months of winter that they become insensible, amount to no more than the usual number of thirty-six hours in their active state, and their demand for nourishment is, probably diminished in the same proportion.

The other animals, that are not rendered torpid by the cold, feel yet very sensibly its effects, which are a want of food and heat; to obviate these pressing evils, the wild quadrupeds of prey, by which these islands are inhabited, such as the fox, the weazel, the polecat, and others, rendered bold by famine, make incursions into the hen-roost and farm-yard; happily, however, we are acquainted, only by report, with those formidable troops of wolves, which

at this season occasionally attack the villages among the Alps, and in other mountainous and woody parts of the continent: of these ravenous invaders, Thomson has given a most spirited decription.

By wintry famine roused from all the tract
Of horrid mountains, which the shining Alps,
And wavy Appennine, and Pyrenees,
Branch out stupendous into distant lands,
Cruel as death, and hungry as the grave!
Burning for blood! bony, and gaunt, and grim!
Assembling *wolves* in raging troops descend;
And, pouring o'er the country, bear along,
Keen as the north-wind sweeps the glossy snow;
All is their prize. They fasten on the steed,
Press him to earth, and pierce his mighty heart:
Nor can the bull his awful front defend,
Or shake the murdering savages away.
Rapacious, at the mother's throat they fly,
And tear the screaming infant from her breast.
The god-like face of man avails him nought.
But if, apprized of the severe attack,
The country b shut up, lur'd by the scent,
On church-yards drear (inhuman to relate)
The disappointed prowlers fall and dig
The shrouded body from the grave.

At this season also, hares, forgetting their natural fearfulness, enter the gardens to browse on the cultivated vegetables, and leaving their tracks in the snow, are fre-

quently hunted down, or caught in snares. Rabbits, pressed with hunger, enter into plantations, where they destroy multitudes of trees, by barking them as high as they are able to reach.

The numerous tribes of birds also quit their retreats, gather together in large flocks, and, in search of food, approach the habitations of man. Larks, and various other small birds, betake themselves for shelter to the warm stubble. Fieldfares, thrushes and blackbirds, nestle together under hedges and ditch banks, and frequent the warm manured fields in the neighbourhood of towns. Sparrows, yellow-hammers and chaffinches, croud into the farm-yard, and attend the barn-doors, to pick up their scanty fare from the straw and chaff. The titmouse pulls straw out of thatch in search of flies and other insects, which have sheltered there. From wet meadows many birds, such as red-wings, fieldfares, sky-larks and tit-larks, procure much of their winter subsistence; the latter bird, especially, wades up to its belly in pursuit of insects, and runs along upon the floating grass and weeds. They meet also with many gnats on the snow near the water. Birds which feed upon vegetables,

such as the ring-dove, devour the tender tops of turnips and other vegetables; and the berries of the ivy afford a considerable supply: these do not appear to be at all affected by the most severe frosts, and, in this respect, are far superior to the hips and haws, that are frequently spoiled before the end of November. The redbreast ventures into the house,

> And pays to trusted man
> His annual visit.

Snipes, woodcocks, herons, wild-ducks, and other water-fowl, are forced from the frozen marshes, and obliged to seek their food about the rapid currents of streams that are still open. As the cold grows more severe, various kinds of sea-birds quit the bleak shores, and come up the rivers in search of shelter and subsistence. The domesticcattle at this season,require all the care and attention of the farmer. Sheep are often lost in the sudden storms, by which the snow is drifted in the hollows, so as to bury them a great depth beneath it; yet in this situation, they have been known to survive many days, passing the time, probably, in a state of sleep approaching to torpor, and thus requiring little or no food, and but a

scanty supply of air; while the shelter of the surrounding snow, and the natural heat of their bodies, would keep them in a constant moderate temperature. Cows, with much ado, scratch up a few mouthfuls of grass; but for their chief subsistence they must depend on the hay, and other stores of the farm yard. Early lambs and calves are kept within doors, and tended with as much care as the farmer's own children.

The plants, at this season, are provided by nature with a sort of winter-quarters, which secure them from the effects of cold. Those which, being of the grassy kind, are called *herbaceous*, which die down to the root every autumn, are now safely concealed under ground, preparing their new shoots to burst forth, when the earth is softened in spring. Shurbs and trees which are exposed to the open air, have all their soft and tender parts closely wrapt up in buds, which by their firmness resist all the power of frost; the larger kinds of buds, and those which are almost ready to open, are further guarded by a covering of resin or gum, such as the horse-chestnut, the sycamore, and the lime. Their external covering, however, and the closeness of their internal texture, are of themselves by

no means able to resist the very severe cold of a winter's night: a bud *detached* from its stem, inclosed in glass, and thus protected from external air, if hung from a tree, during a sharp frost, will be entirely penetrated, and its parts put out of order by the cold, while the buds on the same tree will not have sustained the slightest injury; we must, therefore, attribute to the *living principle* in vegetables, as well as animals, the power of resisting cold to a very considerable degree. If one of these buds be carefully opened, it is found to consist of young leaves rolled together, within which are even all the blossoms, in miniature, that are afterwards to adorn the spring. The leaves of the woodbine appear just ready to expand by the end of the month: the winter wolf's-bane and bear's-foot are generally by this time in flower, and under the shelter of southern hedge-banks, the red-dead-nettle, and groundsel. The flowers of the mezereon and snow drop seem on the point of blowing, and the catkin, or blossom of the hazel, begins to unfold. At the same time also the, shell-less snail or slug makes its appearance, and commits great havock upon the young garden plants and on green wheat.

During the severity of the frost, little work can be done out of doors by the farmer. As soon as it sets in, he takes the opportunity of the hardness of the ground to draw manure to his fields. He lops and cuts timber, and mends thorn-hedges. When the roads become smooth from the frozen snow, he takes his carts, and carries hay and corn to market, or draws turf and coals for himself and neighbours. The barn resounds with the flail, by the use of which the labourer is enabled to defy the cold weather. In towns, the poor are pinched for fuel, and charity is peculiarly called for at this season of the year. Many trades are at a stand during the severity of the frost; rivers and canals being frozen up, watermen and bargemen are out of employment, and even shoemakers are obliged to stop their work, from the freezing of their wax. The harbours, however, of the British islands are never locked up by the ice, as they are in the more northern parts of Europe, and even on the opposite coast of Holland.

The amusement of shooting, sliding, skating, and other pastimes, give life to this dreary season; but our frosts are not constant and steady enough to afford us

such a share of these diversions as some other nations enjoy.

The numerous canals of Holland are covered with ice during the winter, so that boats can no longer ply on them; this, however, does not produce much inconvenience, though in a country where few carriages are used, merchants always travel or send their goods to the different towns, by water. The sledge, which is like a gig without wheels, is then made use of, and flies over the smooth surface of the ice, as swiftly as the horse can draw it. Every person also in Holland can skate, and it is no unusual thing to see men, women, and children, skating several miles to prayers on a Sunday, decked out in their holyday clothes. On working-days they will, in the same manner go to or return from market with heavy loads upon their backs; they skim along with the greatest swiftness, and, without feeling the least fatigue, will reach their journey's end in a much shorter time than a man could run.

> Where the Rhine,
> Branch'd out in many a long canal, extends,
> From ev'ry province swarming, void of care,
> Batavia rushes forth; and, as they sweep
> On sounding skates a thousand different ways,

In circling poise, swift as the wings, along,
The then gay land is madden'd all to joy.

THOMSON.

In Lapland, where the ground is too barren to yield corn, or even pasture for cattle, and in winter, when it is entirely covered with snow, the inhabitant would perish on the spot where the cold weather surprizes him, if the Almighty, whose providence is always exercised in supplying our wants, had not given him the rein-deer to transport him from one place to another, to afford him also food and clothing, furnishing, at the same time, in great abundance, to that useful animal, the moss on which it lives. When the winter has set in, the Laplander will yoke his rein-deer to the sledges, and travelling at the rate of about fifty miles a day, soon arrive with his family at the place where his winter provisions are laid up.

The great law of assembling together during cold weather, which affects birds and several classes of quadrupeds, exerts its influence also on man. The Greenlanders and Samoiedes retire to their large underground habitations, each of which is occupied by five or six families; and, in the more civilized parts of the north of Europe, plays, balls, visitings, and social amuse-

ments of various kinds, contribute to raise the spirits and cheer the heart, in spite of the dead, and desolate scenes which nature, at every step, presents to our view.

FEBRUARY.

Now shifting gales, with milder influence, blow,
Cloud o'er the skies, and melt the falling snow;
The soften'd earth with fertile moisture teems,
And, freed from icy bonds, down rush the swelling
streams.

The earlier part of this month may still be reckoned winter, though the cold generally begins to abate. The days are now sensibly lengthened, and the sun has power enough gradually to melt away the ice and snow. The hard weather generally breaks up with a sudden thaw, attended by a south wind and rain, which all at once dissolves the snow. Torrents of water then pour from the hills, every brook is swelled into a large stream, which rushes violently into the rivers; the pavement of ice, with which they are covered, now breaks up in every direction with the noise of thunder; and the floating masses, dashed against barges and bridges, force down

every thing that obstructs their passage: the bed of the river becomes unable to carry off this vast accumulation of water; it swells over the banks, floods the bordering fields, and sweeps away cattle, mills, hay-stacks, gates, trees, and, in short, almost every thing that it reaches; the manure is carried off from the fields, high banks with the trees upon them are undermined and give way, and, in the space of a few hours, very great losses are sustained.

> Muttering, the winds at eve, with blunted point,
> Blow, hollow-blustering, from the south. Subdued,
> The frost resolves into a trickling thaw.
> Spotted the mountains shine, loose sleet descends,
> And floods the country round. The rivers swell,
> Of bonds impatient. Sudden from the hills,
> O'er rocks and woods, in broad brown cataracts,
> A thousand snow-fed torrents rush at once,
> And, where they rush, the wide-resounding plain
> Is left one slimy waste.
>
> THOMSON.

When the ice, which covers a part of the river Danube, has been broken up by the sun's heat, and carried down the stream, it gradually collects in large masses below the city of Vienna, where the banks become narrower; each block of ice is pushed by

the current against the fragments that have gone before, till, at last, the whole has formed a high wall of ice, which extends quite across, and would effectually stop the course of the water and cause it to inundate the surrounding country, if means were not taken to remove it. A train of artillery is brought, and a steady fire, with heavy cannon-balls, is kept up against it, till the whole is battered down, and has left the channel of the river free.

The frost, however, usually returns for a time, when fresh snow falls, often in great quantities, and thus the weather alternately changes during most part of this month.

Various signs of returning spring occur at different times in February. The wood-lark, one of our earliest and sweetest songsters, often renews his note at the very entrance of the month; not long after rooks begin to pair, and geese to lay. The trush and chaffinch then add to the early music of the groves; wood-owls hoot; near the close of the month partridges begin to couple, and repair the ravages committed on this devoted race during the autumn and winter. Gnats play about, insects swarm under sunny hedges, and some of the earliest of the butterfly tribe

make their appearance; for though by far the greater proportion of many species of insects perishes at the close of autumn, yet several individuals, probably those that are the latest in their birth, are only rendered torpid by the cold; and the moderate warmth of a bright winter's day, is sufficient to rouse them into activity.

Many plants spring from under-ground in February, but few flowers as yet adorn the fields and pastures. Snow-drops are sometimes fully opened from the beginning of the month, and often peep out amidst the snow.

The alder-tree discloses its flower-buds; the catkins of the hazel are seen in the hedges; young leaves are budding on the gooseberry and currant trees, about the end of the month; and those causes are now in full activity, which produce the springing of plants, and the renewing of vegetable life.

The first vital operation in trees, after the frost is moderated, and the earth sufficiently thawed, is the *ascent of the sap*, which is taken up by the small vessels or tubes composing the *inner bark* of the tree, and reaching to the extremity of the fibres at the roots; the water thus taken in by the

roots is there mixed with a quantity of sugary matter, and formed into sap, whence it is distributed in great abundance to every bud. The amazing quantity of sweet liquid sap thus provided by nature for the nourishment of some trees, is evident from a general custom in some countries, of *tapping* the birch in the early part of spring; thus obtaining from each tree a quart or more of liquor, according to its size, which is fermented into a kind of wine. The same method is also practised in hot countries, to procure the favorite liquor of the inhabitants, *palm-wine*; and a similar custom is observed in the northern parts of America, with regard to the sugar-maple, the juice of which, boiled down, yields a rich sugar, each tree affording about three pounds. This great quantity of nourishment causes the bud to swell, to break through its covering, and to spread into blossoms, or lengthen into a shoot bearing leaves. This is the first process, and properly speaking, is all that belongs to the springing or lengthening of trees; and in many plants, particularly those which are annual, or fall every year, there is no other process; the plant sucks in juices from the earth, and in proportion to

the quantity of these juices, increases in size: it spreads out its blossoms, perfects its fruit, and, when the ground is incapable by drought or frost of yielding any more moisture, or when the vessels of the plant are not able to draw it up, the plant perishes. But in trees, though the beginning and end of the first process are exactly similar to what takes place in vegetables, yet there is a second process, which, at the same time that it adds to their bulk, enables them to endure and go on increasing through many years.

The second process begins soon after the first, in this way. At the base of the footstalk of each leaf, a small bud is gradually formed; but the small vessels of the leaf, having exhausted themselves in forming the bud, are unable to bring it nearer to maturity: in this state it exactly resembles a seed, containing within it the rudiments of vegetation, but without vessels to nourish and enlarge the seed. Being surrounded, however, by sap, like a seed in moist earth, it is in a proper situation for growing: the influence of the sun sets in motion the juices of the bud and of the seed, and the first operation in both of them is to send down roots to a certain depth into the

ground, for the purpose of obtaining the necessary moisture. The bud, accordingly, shoots down its roots upon the inner bark of the tree, till they reach the part covered by the earth. Winter now arriving, the cold and want of moisture, owing to the clogged condition of the vessels, cause the fruit and leaves to fall, so that, except the buds with roots, the remainder of the tree, like an annual plant, is entirely dead: the leaves, the flowers and fruit are gone, and what was the inner bark is no longer in its usual state, while the roots of the buds form a new inner bark; and thus the buds with their roots contain all that remains alive of the whole tree It is owing to this annual renewing of the inner bark, that the tree increases in bulk; and a new coating being added every year, we are hence furnished with an easy and exact method of finding the age of a tree, by counting the number of circles of which the trunk is composed. A tree, therefore, properly speaking, is rather a bundle of a multitude of annual plants, than an individual which lives for many years. The sap in trees always rises as soon as the frost is abated, that, when the warm weather, in the early spring, acts upon the bud, there should be

at hand a supply of food for its nourishment; and, if by any means the sap is prevented from ascending at the proper time, the tree infallibly perishes. Of this a remarkable instance occurred in London, during the spring succeeding the hard winter of the year 1794. The snow and ice collecting in the streets, so as to become very inconvenient, they were cleared, and many cart-loads were placed in the vacant quarters of Moorfields: several of these heaps of snow and frozen rubbish were piled round some of the elm-trees that grow there. At the return of spring, those of the trees that were not surrounded with the snow expanded their leaves as usual, while the others, being still girt with a large frozen mass, continued quite bare; for the fact was, the vessels in the lower part of the stem, and the earth in which the trees stood, were still exposed to a freezing cold. In some weeks, however, the snow was thawed; but the greater number of the trees were dead, and those few that did produce any leaves were very sickly, and continued in a languishing state all summer, and then died.

Of all our native birds, none begins to build so soon as the raven: by the latter

end of this month it has generally laid its eggs, and begun to sit. The following anecdote, shewing its attachment to its nest is related by Mr. White in his Natural History of Selborne. "In the centre of this grove there stood an oak, which, though shapely and tall on the whole, bulged out into a large excrescence about the middle of the stem. On this a pair of ravens had fixed their residence for so many years, that the oak was distinguished by the name of *the raven-tree*. Many were the attempts of the neighbouring youths to get at this nest; the difficulty whetted their inclinations, and each was ambitious of performing the arduous task. But, when they arrived at the swelling, it jutted out so much in their way, and was so far beyond their grasp, that the most daring lads were awed, and acknowledged the undertaking to be too hazardous. So the ravens built on, nest upon nest, in perfect security, till the fatal day arrived in which the wood was to be levelled. It was in the month of February, when those birds usually sit. The saw was applied to the butt, the wedges were inserted into the opening, the woods echoed to the heavy blows of the beetle and mallet, the tree

nodded to its fall, but still the dam sat on. At last, when it gave way, the bird was flung from her nest; and, though her parental affection deserved a better fate, was whipped down by the twigs, which brought her dead to the ground."

The farmer is impatient to begin his work in the fields, as soon as the ground is sufficiently thawed. He ploughs up his fallows, sows beans and pease, rye and spring wheat; sets early potatoes; drains wet lands; dresses and repairs hedges; lops trees, and plants those kinds that love a wet soil, such as poplars, alders, and willows.

MARCH.

Winter, still ling'ring on the verge of Spring,
Retires reluctant, and from time to time,
Looks back, while at his keen and chilling breath,
Fair Flora sickens.

THE principal operations of nature during this month seem to be to dry up the superabundant moisture of February, thereby preventing the roots and seeds from rotting in the wet earth, and gradually to bring on the swelling buds; though, at the same time, severe chilling blasts and the variableness in the weather prevent them from a full disclosure of their tender contents. This effect is beautifully touched upon in a simile of Shakespeare's:

"And, like the tyrannous breathings of the north,
"Checks all our buds from blowing."

This seeming tyranny, however, is to be regarded as productive of very important advantages; and those years generally prove most fruitful, in which the pleasing appearances of spring are the latest; for the more advanced the season, the less probability is there of blights and insects, which are the most formidable of all enemies to springing vegetables.

The sun has now acquired so much power, that on a clear day we often feel all the genial influence of spring, though the naked shrubs and trees give the prospect the comfortless appearance of winter. But soft pleasant weather in March is not often of long duration.

> As yet the trembling year is unconfirm'd,
> And winter oft at eve resumes the breeze,
> Chills the pale morn, and bids his driving sleets
> Deform the day, delightless.
>
> THOMSON.

As soon as a few dry days have made the land fit for working, the farmer goes to the plough; and if the fair weather continues, proceeds to sow barley and oats; though this business is seldom finished till the next month. The importance of a dry season for getting the seed early and favour-

ably into the ground is expressed in the old proverb,

A bushel of March dust is worth a king's ransom.

The mellow note of the throstle, which sits perched on the naked bough of some lofty tree, is heard from the beginning of the month, and at the same time the ring-dove coos in the woods; pheasants crow; hens sit; ducks and geese lay; and the rookery is now all in motion with the pleasing labour of building and repairing nests. It is highly amusing to observe the tricks and artifices of this thievish tribe, in defending or plundering the materials of their new habitations. A society with such a licence of theft, one would imagine could not possibly subsist; and that they are sometimes obliged to employ the power of the public to control the private dispositions of individuals, is shewn in the following story. There was once, in a rookery, a pair of birds, who, in the building time, instead of going out in search of materials, kept at home, and, watching the opportunity, plundered every unguarded nest; thus building their own habitation by contributions levied upon the industry of their neighbours. This had continued some time, and the

robbers had hitherto escaped with impunity: their nest was just finished, when the rest of the society, by common consent, made an attack on the depredators, beat them soundly, demolished their nest, and expelled them from the rookery.

These birds are accused by the farmer of doing much injury, by plucking up the young corn, and other springing vegetables; though of late it seems to have become a general opinion that this mischief is fully repaid by their diligence in picking up the grubs of various insects, which, if allowed to grow to maturity, would occasion much greater damage. For this purpose, they are seen frequently following the plough, and darkening with their numbers the newly turned up land; in which occupation, near the sea-coast, they are frequently joined by multitudes of gulls; and as these birds, at other times, confine themselves almost wholly to the shore, it would probably be worth the farmer's while, where he has an opportunity, to encourage them, in preference to the former.

Some birds that took refuge in our temperate climate from the rigour of the northern winters, now begin to leave us, and return to the countries where they

were bred; the red-wing-thrush, fieldfare, and woodcock, are of this kind, and they retire to spend their summer in Norway, Sweden, and other northern regions. The reason why these birds quit the north of Europe in winter is evidently to escape the severity of the frost; but why, at the approach of spring, they should return to their former haunts, is not easily accounted for. It cannot be want of food, for if during the winter in this country they are able to subsit, they may fare plentifully through the rest of the year; neither can their change of place be caused by an impatience of warmth, for the season when they quit this country, is by no means so hot as the Lapland summers; and, in fact, from a few stragglers or wounded birds annually breeding here, it is evident that there is nothing in our climate or soil which should hinder them from making these countries their permanent residence, as the thrush, blackbird, and others of the same kind, actually do. The crane, the stork, and other birds, which used formerly to be natives of England, have quitted it as cultivation and population have extended; it is probable, also, that the same reason forbids the fieldfare and redwing-

thrush, which are of a timorous retired disposition, to make choice of the British Isles as a place of sufficient security to breed in.

The gannets, or Soland geese, resort during this month to those Scotch isles, where they breed in such numbers, as to cover almost the whole surface of the ground with their eggs and young. The Bass, an insulated rock in the Firth of Forth, is one of their most favourite haunts; of which place Dr. Harvey, in his *Exercitations on the Generation of Animals*, has given a very animated picture. The following is a literal translation of the original Latin: "There is a small island, called by the Scotch *the Bass*, not more than a mile in circumference; its surface is almost entirely covered, during the months of May and June, with nests, eggs, and young birds, so that it is difficult to set a foot without treading on them; while the flocks of birds flying round are so prodigious, that they darken the air like a cloud: and their voice and clamour is so great, that persons can scarcely hear one another speak. If, from the summit of the precipice you look down on the subjacent ocean, you see it on every side covered with

infinite numbers of birds of different kinds, swimming and hunting their prey. If you sail round the island, and survey the impending cliffs, you behold in every fissure and recess of the craggy rocks, innumerable ranks of birds of various kinds and sizes, surpassing in multitude the stars in a serene sky. If you view from a distance the flocks flying to and from the island, you may imagine them a vast swarm of bees."

> Infinite wings! 'till all the plume dark air
> And rude resounding shore are one wild cry.
>
> THOMSON.

St. Kilda, one of the western isles of Scotland, is another of their retreats; and the flocks of Soland geese and other water fowl, are so innumerable that the hills appear like so many eminences covered with snow. The nests are so thick, that when a person walks among them, the hatching fowls on either side can always take hold of his clothes, and the hens will often sit till they are attacked, rather than expose their eggs to the danger of being destroyed by sea-gulls; at the same time, the male birds fly about and furnish food for their mates that are employed in hatching.

Another sea-fowl that retires to the Scotch isles during this month, is the *fulmer*, which, the inhabitants say, furnishes oil for the lamp, down for the bed, the most wholesome food, and an excellent ointment for healing wounds. The young fulmer is no sooner attacked in his nest, than he endeavours to disconcert the fowler by spouting a quantity of oil out of his nostrils into the face and eyes of his enemy, and by that means frequently gains an opportunity of escaping; but those who are skilful, make every effort to surprize him, for, considering the oil very precious, they use all their address to save it.

These birds are caught by letting down men by ropes into the shelves of the rocks, each having a broad piece of linen or something white fixed on his breast: this is done in the night, when the bird, mistaking the white object for a piece of the rock, endeavours to cling to it, and is immediately caught and killed. The fowlers continue thus employed till the dawn, when they are drawn up by their companions above, along with the prey which they have taken, and which sometimes consists of several hundred birds.

Frogs, which during the winter lay in a torpid state at the bottom of ponds or

ditches, are enlivened by the warmth of spring, and early in this month rise to the surface of the water, in vast numbers. They are at first very timorous, and dive to the bottom with great quickness, as any one approaches; but in the coupling season they become bolder, and make themselves heard to a great distance by their croaking. A short time after their first appearance they begin to spawn; each female deposits a mass of transparent jelly-like globes, with a black speck in the middle; in this last are contained the future tadpole, while the transparent covering serves both for the defence and food of the embryo. In a few days the round speck becomes somewhat lengthened, at the same time increasing in size, till, at the end of about three weeks or a month, the little animal breaks through its covering, and trusts itself to the shallowest and warmest part of the pond or ditch, where it happened to be deposited: as the summer advances it increases in size; the fore-legs begin to shoot out, and shortly after the hind ones, the body becomes more lengthened, the tail falls off, the length of the intestines is considerably shortened, and, from an aquatic grass-feeding animal it is changed into a

minute frog, amphibious, and feeding upon insects and other animal food. When this last transformation is perfected, the necessity of emigration seizes upon the whole brood, the water is deserted, and they make their appearance on the land so suddenly, and in such amazing numbers, that they have been supposed to descend from the clouds. So prone have men in all ages been to have recourse to wonders, by way of saving themselves the trouble of minute investigation, and the use of their senses!

The bat now makes its appearance; and about this time also, the viper uncoils itself from its winter sleep. This is the only venemous reptile produced in England, and happily it is by no means common. They are found principally in rocky warm thickets and in unfrequented heaths, in search of their favourite food, the various species of fieldmice, very seldom intruding, as the common snake, into the garden and hedge-banks. In some of the small uninhabited islands of the Hebrides, they swarm to a great degree. The poison of these animals is secreted in a small gland under each eye, from which passes a small tube, which communicates with a sharp hollow tooth, capable of being erected or depressed at

pleasure. When the viper wishes to inflict a wound, it erects its hollow teeth, and darting forwards, strikes them into the skin, at the same time squeezing a drop of poison through the opening in the tooth; the wound soon after grows very hot and painful, swells extremely, and occasionally proves fatal, or at least takes away the use of the injured part, unless a proper remedy is speedily applied. That which is in common use, and which has scarcely ever been known to fail, is olive or sallad oil; a quantity of which rubbed upon the wound, and also taken internally, is a certain remedy: on which account the viper-catchers have always a bottle of oil with them in case of need. And here we cannot but remark, that there are few circumstances for which the inhabitants of these islands ought to be so thankful, as their freedom from beasts of prey and venemous reptiles. While most other countries are infested by wild beasts, and by serpents of great size and quite deadly in their bite. England suffers only under the viper, whose bite, though injurious, is very seldom fatal, and Ireland is not exposed to any of these misfortunes whatever. In this latter, there are not scorpions, snakes of any kind, or even

toads; and wolves, which formerly existed, are now entirely banished. It is difficult if not impossible, to account for this peculiarity; but, whatever be the cause, the inhabitants of Ireland ought to be grateful for the fact; they ought to be filled with thankfulness towards a kind Providence, which is so bountiful in bestowing what is useful, and which has freed them from evils under which so many suffer.

Those most elegant fish, smelts or sparlings, begin to run up the rivers in this month in order to spawn. They are of so tender a nature, that the least mixture of snow-water in the river drives them back again into the sea.

But nothing in the animal creation is a more pleasing spectacle than the sporting of the young lambs, most of which are yeaned this month, and are trusted abroad when the weather is tolerably mild. Dyer, in his poem of the Fleece, gives a very natural and beautiful description of this circumstance:

> Spread around thy tenderest diligence
> In flow'ry spring time, when the new dropt lamb,
> Tottering with weakness, by his mother's side,
> Feels the fresh world about him; and each thorn,
> Hillock, or furrow, trips his feeble feet:

O guard his meek sweet innocence from all
Th' innumerous ills, that rush around his life:
Mark the quick kite, with beak and talons prone,
Circling the skies to snatch him from the plain;
Observe the lurking crows; beware the brake,
There the sly fox the careless minute waits. The dam,
O'er her weak twins, with empty udder, mourns,
Or fails to guard, when the bold bird of prey
Alights, and hops in many turns around,
And tires her also turning: to her aid
Be nimble, and the weakest, in thine arms,
Gently convey to the warm cote; and oft,
Between the lark's note and the nightingale's,
His hungry bleating still, with tepid milk;
In this soft office may thy children join,
And charitable habits learn in sport:
Nor yield him to himself, ere vernal airs
Sprinkle thy little field with daisy flowers.

Another agreeable token of the arrival of the spring is, that the bees begin to venture out of their hives about the middle of this month: as their food is the honey-like juice found in the tubes of flowers, their coming abroad is a certain sign that flowers are now to be met with. No creature seems possessed of a greater power of foreseeing the weather, so that their appearance in a morning, may be reckoned a sure token of a fair day.

Several species of bees are natives of Great Britain, some of which lay up honey, while others do not; some of which live in large societies, and others are solitary. But that species which is commonly meant by the term *bee*, is the one that is at present domesticated, lays up honey, and dwells in numerous communities. These little animals, in a wild state, form their nests in the hollow of some tree, or the cleft of a rock; in which situation, they were frequently seen and described by the old Greek and Latin poets. Homer particularly, in the very first simile of the Iliad, gives the following animated picture of them.

> **As from some rocky cleft the shepherd sees,**
> **Clust'ring in heaps on heaps, the driving bees**
> **Rolling, and black'ning, swarms succeeding swarms,**
> **With deeper murmers and more hoarse alarms;**
> **Dusky they spread a close embodied crowd,**
> **And o'er the vale descends the living cloud.**
>
> **POPE's HOMER.**

The poet Virgil, who has appropriated a whole book in his Georgics to the subject of bees, has there repeated, in most beautiful language, as much of the govern-

ment and natural history of this insect as was known to the ancients. Since the time, however, in which he wrote, many errors have been detected, and many new circumstances have been added, by the zeal and attention of modern observers.

Early in the spring, each hive contains one queen or female, from 200 to 1000 drones or males, and from 15,000 to 18,000 labourers; the first and last kind alone have stings the males being entirely unarmed. As soon as the plants begin to flower, the inhabitants of the hive put themselves in motion; the greater part of the labourers take wing, and disperse themselves through the neighbourhood in search of honey and wax; the former of which is a sweet limpid juice found in the blossoms of flowers, and the latter is made by the bees, from the dust contained within the blossoms. These different materials are brought to the hive, and the labourers in waiting take the wax, and form of it those little six-sided cells, which serve as storehouses for the honey, or nests for their young; the honey is partly distributed for present food to the inhabitants, and the remainder laid up against winter. While the labourers are thus engaged, the queen

begins to deposit her eggs, to the number of about 50 each day, in the empty cells: the egg, being soon hatched into a little white grub, increases the employment of the labourers, to whom is allotted the task of feeding it with the purest honey: when it has reached its full size, the mouth of its habitation is closed up with wax, it alters its form, and in a few days breaks through its waxen covering, being changed into a perfect bee, and instantly quits the hive in search of honey for the public store. This rapid accession, however, of inhabitants, soon begins to crowd the hive, and commonly in the months of May June and July, large emigrations takes place, called swarms, which settling in an empty hive (or in their wild state in a hollow tree or rock), in a few days lay the waxen foundations of their state, and begin collecting honey for their winter supply. Each swarm consists of a principal queen, 1000 or more males, and from 24,000 to 28,000 labourers. Thus they live in perfect harmony with each other, and daily adding to their numbers and stores; till, sometime in the six or seven weeks, between the latter end of July and the beginning of September, the particular time varying in different hives, the whole

state becomes all uproar and confusion, a loud angry humming is heard, accompanied by a general massacre and expulsion of the drones: every full grown male is destroyed, or turned out to perish: the young grubs that would have changed into drones are destroyed, and in the whole interval from September to March, only a few hundred males are allowed to arrive at maturity. We cannot leave this little animal, without entering a little more fully into an account of its nature and mode of living. In every hive there are three kinds of Bees, 1st, the Queen Bees, 2nd, the Labourers, 3d, the Drones; and it is remarkable that the two first consist entirely of females, and all of the third are males. The use of those latter appears, by the most accurate observations, to be the propagation of their kind; they never work, and when the object of their existence is obtained, they are all, as we have said above, put to death. Properly speaking, there is but one Queen in each hive; but there are always some young ones bred that they may become Queens, and when they arrive at the proper season, fly away from the old hive, and establish new governments of their own.

The labourers have but one business, to make the honey and wax, and, when the young require it, to feed them; while the whole hive is the progeny of the principal Queen. From the time she begins to lay she continues to do so without stopping; and she lays at the rate of 1500 Eggs in a month. At first she lays only labourers, afterwards only drones; but if any circumstance should interrupt the regular course of things, she is found to lay only drones from first to last; and in this case, such is the wonderful sagacity of this little animal, the whole hive is thrown into confusion, and breaks up, as in that case there would not be a future supply of Labourers. The Queen, as she lays each egg, places it in a cell, where it is immediately supplied with food; but if she should drop the eggs at random, which sometimes takes place, they are devoured. And, in this circumstance alone, we may see the great superiority of Reason, when put in comparison with the boasted instinct of animals; if the young be put in the proper place, it is taken care of, otherwise destroyed; thus clearly shewing how very confined are any notions the bee has of the attention which ought to be paid to the young of its own kind.

The queen is much larger than any other bee in the hive, and at first sight appears of a kind superior to the rest; but the fact is, that every Labourer, if taken enough into care, might be made a queen. If by an accident the queen should die, the workers immediately take four or five eggs, enlarge the cells in which they are, give them a larger quantity of better food, and thus invariably change those into Queens, which would, otherwise, have been mere Labourers. The experiment has been often tried, and has always been successful. They have by this means several Queen bees at all times, which serve two important purposes; first, to supply the place of the old queen if she should die, second, to lead off in due season those Labourers and Drones which the hive is not able to hold. When the weather is too hot for them in their little habitation, or, when the number of the inhabitants has become too great for its size, a large party leaves the main body, and proceeds to find a new dwelling. This party, called a swarm, is always headed by a Queen bee, sometimes the principal of the original hive, sometimes a young one which has never been at the head of a hive before. When it comes to a situation fitted for its

use, it stops and after some time proceeds to the usual business of making cells, and gathering honey and wax; the Queen bee begins to lay her eggs, and every thing proceeds as in the hive which was left.

The gardens are now rendered gay by the crocuses, which adorn the borders with a rich mixture of the brightest yellow and purple. The little shrubs of mezereon are in their beauty. The fields look green with the springing grass, but few wild flowers as yet appear to ornament the ground. Daisies, however, begin to be sprinkled over the dry pastures; and the moist banks or ditches are enlivened with the glossy star-like yellow flowers of pilewort. Towards the end of the month, primroses peep out beneath the hedges; and the most delightfully fragrant of all flowers, the violet, discovers itself by the perfume it imparts to the surrounding air, before the eye has perceived it in its lowly bed. Shakespeare compares an exquisitely sweet strain of music, to the delicious scent of this flower—

> O! it came o'er my ear, like the sweet south,
> That breaths upon a bank of violets,
> Stealing and giving odour.

There are several kinds of violet; but the fragrant (both blue and white) is the earliest, thence called the *March violet.* To these flowers SHAKESPEARE add the daffodil.

> Which comes before the swallow dares, and takes
> The winds of March with beauty.

Beside the hazel, the sallow now enlivens the hedges with its catkins full of yellow dust; The leaves of honey-suckles are nearly expanded. In the gardens, the peach and nectarine, the almond, the cherry and apricot trees, come into full bud during this month. The gardeners find plenty of employment in pruning trees, digging and manuring beds, and sowing a great variety of seeds, both for the flower and kitchen garden.

In the latter part of this month the *Equinox* happens, when day and night are of equal length all over the globe: or rather, when the sun is an equal time above and below the horizon. For the morning and evening twilight make apparent day considerably longer than night. This takes place again in September. The first is called the vernal, or spring, the latter the autumnal equinox. At these times, storms

and tempests are particularly frequent, whence they have always been the terror of mariners. March winds are boisterous and vehement to a proverb.

APRIL.

Now daisies pied, and violets blue,
And ladies smocks all silver white,
And cuckoo-buds of yellow hue,
Do paint the meadows with delight:
The cuckoo now on every tree
Sings cuckoo—cuckoo.

The distinguishing characteristic of the weather during this month is fickleness; the most lovely sunshiny days are succeeded by others, which, by the force of contrast, often seem the most unpleasant of any in the year; the bright green of the fresh leaves, and the delightful view of newly opened flowers, are too frequently obscured by clouds, and chilled by rough wintry blasts.

The most perfect image of spring, however, is exhibited in this month; no production is yet come to maturity, and the

occasional warm gleams and gentle showers have the most powerful effect, in hastening that universal springing of the vegetable tribes, whence the season derives its name.

In all climates, water is indispensible to vegetation, without it, the sun's heat would wither up every green thing, and the appearance of the earth would be that of a barren waste. We shall find, therefore, that every habitable country is furnished with it abundantly, and that Providence has, with infinite wisdom, varied the mode of supply, according to the differences of climate or local situation.

Egypt is a country of Africa, where but little rain falls, and yet the soil is no where more fertile, nor the produce more abundant. The river Nile which flows through it, is, at a certain period in each year, swollen by the rains that set in upon the mountains of Abyssinia, 2000 miles to the south, and it rises so as to cover the whole face of the land. The inhabitants take advantage of this circumstance to draw off the water by canals and trenches to the distant grounds. When the floods subside, the land is found covered with a rich slime washed down from the hills, and nothing remains to the husbandman but to throw on his seed,

and to receive in a short time the plenty which the goodness of Providence has sent to him. The Ganges also in India, the Niger in Africa, and various other rivers that take their rise from high mountains, have the same periodical inundations and produce an equal abundance. In the neighbourhood of the Alps, the country is watered by the melting of the snows, which takes place in summer, precisely when the earth requires more moisture. In those countries which lie near the middle parts of the Earth, the seasons are not as with us divided into Summer and Winter, Autumn and Spring, but into the wet and dry seasons; during the former the rain falls in torrents, and produces a luxuriance and fertility of which we can scarcely form an idea; the same fields will, in one year, give a succession of crops, and trees and plants, of all kinds, grow to an enormous height and size.

In the dry season, the excessive heat is moderated by a contrivance no less wonderful and providential; after the sun has set each evening, the coolness of the air condenses the vapours which have risen during the day, and causes them to fall back

upon the earth in the form of dew, thus cooling the ground which had been parched by the sun, and affording moisture to those plants which must otherwise perish.

In our own country, the frequency of rains, at all times of the year, secures to us the most delicious verdure, and the most abundant harvests, yet the practice of flooding our pasture lands has been attended with great success, and often produces as rich a vegetation as if the land had been covered with manure.

The rapid progress of vegetation in Canada, as soon as the winter is over, is most astonishing. The snow thaws rapidly, the ice, which spreads over the rivers, cracks with a report as loud as a cannon, and is carried away by the current; warm weather immediately comes on, and spring has scarcely appeared, when you find it is summer. In a very few days, the fields are clothed with the richest verdure, and the trees are in full leaf. Vegetables, fruit and flowers succeed each other rapidly, and the grain sown in May, is fit for the sickle by the latter end of July.

April generally begins with raw unpleasant weather, the influence of the equinoctial storms in some degree still pre-

vailing. Its opening is thus described in a poem of Mr. Warton's.

> Mindful of disaster past,
> And shrinking at the northern blast,
> Reluctant comes the timid spring;
> Scarce a bee with airy ring,
> Murmurs the blossom'd boughs around,
> That clothe the garden's southern bound:
> Scarce the hardy primrose peeps
> From the dark dell's entangled steeps.

Early in the month, that welcome guest and forerunner of summer, the swallow, returns. Of this kind of birds, there are four sorts that visit our island, all of which are known by the shortness of their legs, the extent of their wings, and the ease and swiftness of their flight, by which they escape the attacks of the kite and sparrow-hawk, that commit such havock among the other small birds. The kind first seen is the chimney swallow, remarkable by its long forked tail, and red breast, and by a twittering note, on account of which it might perhaps, with no great impropriety, be called a singing bird; it makes its nests in chimneys. At first, here and there, only one appears, glancing by as if scarcely able to endure the cold:

The swallow, for a moment seen,
Skims in haste the village green.

But in a few days their number is greatly increased, and they sport with much seeming pleasure in the warm sunshine. The second in the order of arrival is the house-martin, which constructs its nest of clay under the eaves of houses, and in the corners of windows: this is the most numerous species and is known by its white breast and black back. The next sort is the sand-martin; this is the smallest of the whole kind, being called in Spain the mountain butterfly: its favourite residence is in a steep sandbank above a large pool or river, in which it scoops out holes to the depth of about two feet, and in this secure retreat deposits its eggs. The largest species, and that which arrives the latest, is the swift, known by its lofty and remarkably rapid flight: these are seen in fine mornings sporting about, and displaying their various motions, at a vast height in the air; and, in the evening, the males collect together in parties of ten, or a dozen, approach nearer the ground, and hurry round the tops of large buildings; uttering, at the same time, a piercing scream, by way of song, to their mates, who make their nests under the tiles of houses.

As these birds live on insects, their appearance is a certain proof, that many of this minute class of animals are now got abroad from their winter retreats.

Another pleasing occurrence in this month is the pairing of birds, their industry in building nests, and the various melody with which the groves are filled.

In April, ducks and geese hatch. The young ones are covered with a yellow down, and take to the water instantly on leaving the shell, where they afford a pleasing sight, as they sail under convoy of their dams.

Another of the most striking events of this month is the renewal of the cuckoo's note, which is generally heard about the middle of April. The simple monotonous call, whence its name is derived, has commanded attention in all countries; and several rustic sayings, and the names of several plants which flower at this time, are derived from it, as the cuckoo-flower, or lady's-smock, the cuckoo pint or arum: and in Attica, the arrival of this bird, being at the time when the fruit of the fig-tree (for which the territory of Athens was celebrated) made its appearance, the cuckoo and a young fig were called by the same name, coccux.

Hail beauteous stranger of the wood,
Attendant on the spring!
Now heaven repairs thy rural seat,
And woods thy welcome sing.

Delightful visitant! with thee
I hail the time of flowers,
When Heaven is filled with music sweet
Of birds among the bowers.

It is upon this coincidence between the arrival of birds and the flowering of plants, that natural calendars have been attempted to be constructed. It would indeed be returning to the earliest ages of ignorance and barbarism, were we to make use of such a calendar, however perfect in its kind, in civil transactions, as we are in possession of unvarying modes of calculating time by the assistance of astronomy, but the very circumstance that unfits a natural calendar for civil use, renders it of considerable importance to the farmer and gardener, whose business is so materially affected by the irregular changes of the seasons. For example, the time of sheep-shearing, it is evident, cannot be fixed to any particular week, much less to any certain day; for this operation cannot be performed safely, till warm weather is thoroughly established;

it would be absurd, therefore, to fix the second week in June for this business, since the latter end of May in very favorable years, and the close of June in unfavorable ones, might, according to circumstances, be the most proper time: a certain degree of warmth is necessary to the blossoming of the elder-tree, and as the season is early or late, so will be the time of this plant's flowering; and as an equal degree of heat is requisite, before sheep ought to be sheared, according to the season of elder-blossoms will vary the time of sheep sheering.

The other summer birds of passage that arrive during this month, usually make their appearance in the following order: the yellow wren, swift, grasshopper-lark, and willow wren. Various kinds of insects are seen about this time, of which the most remarkable is the mole-cricket, which is common in England. This singular animal is distinguished by its low, dull, jarring note, continued for a long time without intermission, like the chattering of the fern owl; but still more so by the peculiar structure of its fore-feet, which are exceedingly strong, and greatly resemble those of the mole, whence this insect derives its

name. Anatomists also have discovered so great a conformity between its internal structure, and that of the ruminating quadrupeds, as to render it highly probable that this animal, like them, chews the cud.

The mole-cricket inhabits the sides of canals and swampy wet soils, in which, just below the surface, it forms long winding burrows, and a chamber neatly smoothed and rounded, of the size of a moderate snuff-box, in which, about the middle of May, it lays its eggs, to the number of nearly a hundred. The ridges, which they raise in their under ground progress, interrupt the evenness of gravel-walks, and the havoc they commit in beds of young cabbages, legumes, and flowers, renders them very unwelcome guests in a garden.

Several kinds of that elegant tribe of insects the dragon-fly, about this time arise out of the water, in which they pass their infant state.

The horse-ant, in the beginning of this month, recommences its annual labours; this species is about three times the size of the common black ant, and inhabits the pine forests of Scotland, and the rocky woods of England and Wales, in which it erects a large conical nest, two feet or more

in height, composed of leaves and small twigs.

The large bat, and shell-snails, quit their winter retirements at this period; and, on mild evenings, earth-worms come out of their holes in search of food, or for the purpose of propagation.

Fish, actuated by the same law that exerts its influence upon the rest of nature, now leave the deep holes and sheltered bottoms, where they passed the winter, and, wandering about in search of food, again offer themselves to the angler.

> Beneath a willow long forsook,
> The fisher seeks his custom'd nook;
> And bursting through the crackling sedge
> That crowns the current's cavern'd edge,
> He startles from the bordering wood
> The bashful wild-duck's early brood.
>
> WARTON.

Many trees come into blossom during this month, and form a most agreeable spectacle, as well on account of their beauty, as the promise which they give of future benefits. The blackthorn or sloe leads the way, and is succeeded by the apricot, peach, nectarine, cherry, and plum: but though

> Hope waits upon the flow'ry prime,

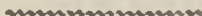
yet it is an anxious time for the possessor, as the fairest prospect of a plentiful increase is often blighted by the frequent returns of frosty winds.

Cowper describes the same circumstance in the following lines:

> Spring is but the child
> Of churlish Winter, in her froward moods
> Discovering much the temper of her sire.
> For oft, as if in her the stream of mild
> Maternal nature had revers'd its course,
> She brings her infants forth with many smiles,
> But once deliver'd, kills them with a frown.
>
> Task, III.

Those of the earlier plants that now most strike the eye, are the primrose and wood-sorrel under hedges; the wood anemone in dry woods and thickets; the wood crowfoot and marsh marygold in wet marshy places; and the lady's smock or cuckoo-flower in meadows.

The farmer is still busied in sowing different sorts of grain and seeds for fodder; for which purpose, dry weather is yet suitable; though plentiful showers at due intervals are desirable, for feeding the young grass and springing corn.



MAY.

Born in yon blaze of orient sky,
 Sweet May! thy radient form unfold,
Unclose thy blue and tender eye,
 And wave thy shadowy locks of gold.

For thee the fragrant zephyrs blow,
 For thee descends the sunny shower;
The rills in softer murmurs flow,
 And brighter blossoms gem the bower.

DARWIN.

MAY has ever been the favourite month in the year for poetical description, but the praises originally lavished upon it were uttered in climates more southern than our own. In such, it really unites all the soft beauties of spring with the splendour of summer, and possesses warmth enough to cheer and invigorate, without overpowering. With us, especially since we have reckoned by the new style, great part of the month is yet too chill for a perfect enjoyment of

the charms of nature, and frequent injury is sustained by the flowers and young fruits during its course, from blights and blasting winds. May-day, though still observed as a rural festival, has often little pleasure to bestow, except that arising from the name; while the scanty garlands composed in honour of the day, rather display the infancy, than the luxuriant youth of the year.

The latter part of the month, however, on the whole, is even in this country sufficiently profuse of beauties. The earth is covered with the freshest green of the grass and young corn, and adorned with numerous flowers opening on every side. The trees put on all their verdure; the hedges are rich in fragrance from the snowy blossoms of the hawthorn; and the orchards display their highest beauty in the delicate bloom of the apple blossoms.

> One bound'less blush, one white-empurpled show'r
> Of mingled blossoms.
>
> THOMSON.

All these promising signs of future plenty are, however, liable to be cut off by the blights which peculiarly occur in this month, and frequently commit most dreadful rava-

ges. The history and cause of blights are by no means exactly discovered, and it is a subject which, from its actual importance, well deserves a minute inquiry. There appear to be three kinds of blights: the first occurs in the early spring, about the time of the blossoming of the peach, and is nothing more than a dry frosty wind usually from the north or north-east, and principally affects the blossoms, causing them to fall off too soon, and consequently to become unproductive. The two other kinds of blights occur in this month, affecting principally the apple and pear-trees, and sometimes the corn. One of these consists in the appearance of an immense multitude of small insects of a brown, or black, or green colour, attacking the leaves of plants, and entirely incrusting the young stems. These pests are, I believe, always found to make their appearance after a north-east wind; and it has been supposed by many, that they are actually conveyed hither by the wind

> For oft engend'red by the hazy north,
> Myriads on myriads, insect armies warp,
> Keen in the poison'd breeze; and wasteful eat
> Through buds and bark, into the blacken'd core
> Their eager way. THOMSON.

The last kind of blight follows a south or south-west wind, unaccompanied by insects: the effects of which are visible in the burnt appearance of all leaves and shoots that are exposed to that quarter; it attacks all vegetables, but those suffer most from it which are the loftiest, and the leaves of which are the youngest; the oak therefore is peculiarly injured.

A cold and windy May is, however, accounted favourable to the corn; which, if brought forward by early warm weather, is apt to run into stalk, while its ears remain thin and light.

The leafing of trees is commonly completed in this month. It begins with the aquatic kinds, such as the willow, poplar, and alder, proceeds to the lime, sycamore, and horse-chestnut, and concludes with the oak, beech, ash, walnut, and mulberry; these last, however, are seldom in full leaf till June.

No tree in all the grove but has its charms,
Though each its hue peculiar, paler some
And of a wannish gray; the willow such
And poplar, that with silver lines his leaf,
And ash, far stretching his umbrageous arm.
Of deeper green the elm; and deeper still,
Lord of the woods the long surviving oak.

Some glossy-leav'd, and shining in the sun,
The maple, and the beech of oily nuts,
Prolific, and the lime at dewy eve,
Diffusing odours: nor unnoted pass
The Sycamore, capricious in attire,
Now green, now tawny, and ere autumn yet
Have chang'd the woods, in scarlet honours bright,

COWPER'S TASK.

Among the numerous wild flowers, none attracts more notice than the cowslip.

Whose bashful flow'rs
Declining, hide their beauty from the sun,
Nor give their spotted bosoms to the gaze
Of hasty passenger.

On hedge banks the wild germander of a fine azure blue is conspicuous, and the whole surface of meadows is often covered by the yellow crowfoot. It is a mistake to suppose that this flower, also called buttercups, communicates to the butter at this season its rich yellow tinge, as the cows will not touch it, on account of its acrid biting qualities. This is strikingly visible in pastures, where, though all the grass is cropped to the very roots, the numerous tufts of this weed spring up, flower, and shed their seeds in perfect security, and the most absolute freedom from molestation

by the cattle; they are indeed cut down and made into hay, together with the rest of that rubbish that usually grows in every meadow; and in this state are eaten by cattle, partly because they are incapable of separating them, and partly because, by drying, their harshness is considerably subdued; but there can be no doubt of their place being much better supplied by any sort of real grass. In the present age of agricultural improvement, the subject of grass lands, among others, has been a good deal attended to, but much yet remains to be done, and the tracts of the ingenious Stillingfleet, and of Mr. Curtis, on this important division of rural oeconomy, are well deserving the notice of every liberal farmer. The excellence of a meadow consists in its producing as much herbage as possible, and that this herbage should be agreeable, and nutritious, to the animals which are fed with its crop. Every plant of crowfoot therefore ought, if practicable, to be extirpated, for, so far from being grateful and nourishing to any kind of cattle, it is notorious, that in its fresh state nothing will touch it. The same may be said of the hemlock and other plants which are common in most fields, and which have

entirely overrun others; for these, when fresh, are not only noxious to the animals that are fed upon hay, but, from their rank and straggling manner of growth, occupy a very large proportion of the ground. Many other plants that are commonly found in meadows may, upon the same principles, be objected to; and, though the present generation of farmers has done much, yet still more remains for their successors to perform.

The gardens now yield an agreeable, though unripe product, in the young gooseberries and currants, which become highly acceptable to our tables, now almost exhausted of their store of preserved fruit.

Early in the month, the latest summer birds of passage arrive, generally in the following order; fern owl or goat-sucker, fly-catcher, and sedge-bird.

This is also the principal time in which birds hatch and rear their young. The assiduity and patience of the female, during the task of sitting, is admirable, as well as the conjugal affection of the male, who sings to his mate, and often supplies her place; and nothing can exceed the parental tenderness of both, when the young are brought to light.

Several kinds of insects are this month added to those which have already been enumerated; the chief of which are the great white cabbage butterfly; the horse-fly, or forest-fly, so great a plague to horses and cattle, and several kinds of moths and butterflies.

Towards the end of May, the bee-hives send forth their earlier swarms. These colonies consist of the young progeny, and some old ones, now grown too numerous to remain in their present habitation, and sufficiently strong and vigorous to provide for themselves. One queen bee is necessary to form each colony; and wherever she flies they follow. Nature directs them to march in a body in quest of a new settlement, which, if left to their choice, would generally be some hollow trunk of a tree. But man, who converts the labours of so many animals to his own use, provides them with a dwelling, and repays himself with their honey. The early swarms are generally the most valuable, as they have time enough to lay in a plentiful store of honey, for their subsistence through the winter.

About the same time appears an insect, which though common in England, is not

known in Ireland, called the glow-worm. Of this kind of insect the females are without wings, and luminous, the males are furnished with wings, but are not luminous. The light, which appears at night, is occasioned by a substance, in the tails of these insects, which has the property of shining.

These little animals are found to extinguish their lamps between eleven and twelve at night.

Old May-day is the usual time for turning out cattle into the pastures, though frequently then very bare of grass. The milk soon becomes more plentiful, and of finer quality, from the juices of the young grass; and it is in this month that the making of cheese is usually begun in the dairies. Cheshire, Wiltshire, and the low parts ofGloucestershire, are the tracts in England most celebrated for the best cheese.

Many trees and shrubs flower in May, such as the oak, beech, maple, sycamore, barberry, laburnum, horse-chestnut, lilac, mountain ash, and Guelder-rose; of the more humble plants the most remarkableare the lily of the valley, and woodroof in the woods, the male orchis in meadows, and

the lychnis, or cuckoo-flower on hedge-banks.

This month is not a very busy season for the farmer. Some sowing remains to be done in late years; and, in forward ones, the weeds, which spring up abundantly in fields and gardens, require to be kept under. The husbandman now looks forward with anxious hope to the reward of his industry.

> Be gracious, Heav'n! for now laborious man
> Has done his part. Ye fost'ring breezes, blow!
> Ye soft'ning dews, ye tender show'rs, descend;
> And temper all, thou world-reviving sun,
> Into the perfect year!
>
> THOMSON.

JUNE.

Now genial suns and gentle breezes reign,
And Summer's fairest splendours deck the plain:
Exulting Flora views her new-born rose,
And all the ground with short-lived beauty glows.

JUNE is really, in this climate, what the poets represent May to be, the most lovely month in the year. Summer is commenced, and warm weather thoroughly established; yet the heats rarely arise to excess, or interrupt the enjoyment of those pleasures which the scenes of nature, at this time, afford. The trees are in their fullest dress, and a profusion of the gayest flowers is every where scattered around, which put on all their beauty, just before they are cut down by the sithe, or withered by the heat.

Soft showers are extremely welcome towards the beginning of this month, to

forward the growth of the young herbage. Such a one is thus described by Thomson.

> Gradual sinks the breeze
> Into a perfect calm; that not a breath
> Is heard to quiver through the closing woods,
> Or rustling turn the many twinkling leaves
> Of aspen tall.———————
> ————————————At last
> The clouds consign their treasures to the fields;
> The stealing show'r is scarce to patter heard,
> By such as wander through the forest walks,
> Beneath th' umbrageous multitude of leaves.
> But who can hold the shade, While Heaven descends
> In universal bounty, shedding herbs,
> And fruits, and flowers, on Nature's ample lap?

One of the earliest rural employments of this month is the shearing of sheep; a business of much importance in various parts of Great Britain, where wool, being the basis of the principal manufactures, is one of the most valuable products that the country affords. England has been for many ages famous for its breeds of sheep, which yield wool of various qualites, suited to different branches of the manufacture. The Downs of Dorsetshire and other southern and Western counties, feed sheep, the fine short fleeces of which are employed

SHEEP SHEARING.

in making the best broad cloths. The coarser wool of Yorkshire and the northern counties is used in the narrow cloths. The large Leicestershire and Lincolnshire sheep are clothed with long thick flakes, proper for the hosier's use; and every other kind is applied to some valuable purpose.

The season for sheep-shearing commences as soon as the warm weather is so far settled, that the sheep may, without danger, lay aside great part of their clothing. The following tokens are laid down by Dyer, in his Fleece, to mark out the proper time.

> If verdant elder spreads
> Her silver flowers; if humble daisies yield
> To yellow crowfoot and luxuriant grass,
> Gay shearing time approaches.

Before shearing, the sheep undergo the operation of washing, in order to free the wool from the foulness which it has contracted.

> ———————— On the bank
> Of a clear river, gently drive the flock,
> And plunge them one by one into the flood:
> Plung'd in the flood, not long the struggler sinks
> With his white flakes, that glisten thro' the tides;

The sturdy rustic, in the middle wave,
Awaits to seize him rising; one arm bears
His lifted head above the limpid stream,
While the full clammy fleece the other laves
Around, laborious, with repeated toil,
And then resigns him to the sunny bank,
Where, bleating loud, he shakes his dripping locks.

DYER.

The shearing itself is conducted with a degree of ceremony and rural dignity, being a festival, as well as a piece of labour.

At last, of snowy white, the gather'd flocks
Are in the wattled pen innum'rous press'd,
Head above head: and, rang'd in lusty rows,
The shepherds sit, and whet the sounding shears.
The housewife waits to roll her fleecy stores,
With all her gay-drest maids attending round.
One, chief, in gracious dignity enthron'd,
Shines o'er the rest, the past'ral queen, and rays
Her smiles, sweet-beaming, on her shepherd-king.
A simple scene! yet hence BRITANNIA sees
Her solid grandeur rise; hence she commands
Th' exalted stores of ev'ry brighter clime,
The treasures of the sun, without his rage.

THOMSON.

A sweet fragrance now arises from the fields of clover in blossom. Of this plant there are the varieties of white and purple;

the latter of which is sometimes called honeysuckle, from the quantity of sweet juice contained in the tubes of the flower, whence the bees extract much honey. A still more exquisite odour proceeds from the beans in blossom, of which Thomson speaks in this rapturous language:

> Long let us walk,
> Where the breeze blows from yon extended field
> Of blossom'd beans. Arabia cannot boast
> A fuller gale of joy, than lib'ral, thence,
> Breathes through the sense, and takes the ravish'd soul.

Our hedges are now beginning to be in their highest beauty and fragrance. The place of the hawthorn is supplied by the flowers of the hip or dog-rose, the different hues of which, from a light blush to a deep crimson, form a most elegant variety of colour. The woodbine or honeysuckle is unequalled in fragrance, and, as an ornamental plant, almost rivals the nightshade; while the graceful climbing shoots of the white bryony and tufted vetch connect, by light festoons, the other vegetable beauties that grace peculiarly the hedges of this country.

At this period the nightshade also begins to make its appearance, and, by its violet

flowers and beautiful berries, takes a rank next to the rose. This plant, one kind of which is called the deadly nightshade, is too important to be passed over without some further remark: it has ocasioned so many fatal events, that every person ought to be put upon his guard.

The stalk of the nightshade is erect and round, branching out in various directions, covered with leaves, and rising to a height of three feet. The leaves are numerous, grow by pairs, are smooth, and of a dark green colour. The flowers are of a violet shade; and the berries shining, of a purple colour, so deep as to seem of a most beautiful black, and abounding in a purple juice. It grows chiefly in waste grounds, thickets and close-shaded lanes. The leaves, flowers and berries of this plant are poisonous, but particularly the berries: these latter are deadly poisonous, even half a one has been known to occasion death.

Children are apt to be enticed by the beautiful appearance of the berry, as they wander through the retired places in which the nightshade grows; and parents cannot be too careful of them, if this plant be in the neighbourhood. As the poison acts most rapidly, and soon renders recovery

hopeless, we shall give a brief description of the symptoms, by which it may appear whether a child has taken any of it. First dizziness and delirium, or light-headedness, as in a fever; then soon comes on a great thirst, accompanied by great pain in swallowing; then retching, grinding of the teeth, followed even by madness. When the disorder reaches this state, little hope can be entertained; for convulsions soon succeed, the face becomes red and swoln, the patient insensible, and death shortly follows. It is unfortunate that, very soon after the poisonous matter has been taken into the stomach, vomiting can scarcely be affected by any means, as one operation of the poison is to make the coats of the stomach insensible. A vomit of a strong kind ought, however, to be immediately tried, and if it succeeds, a cure may be expected. Vegetable acids, such as vinegar or lemon-juice, ought to be given in as large quantities as the stomach will bear; and, indeed, these are the substances from which relief is generally obtained, and they ought to be administered while the patient can take them, and as long as any hope remains.

The several kinds of corn come into ear and flower during this month, as well as most of the numerous kinds of grass, which indeed are all so many smaller kinds of corn; or rather corn is only a larger sort of grass. It is peculiar to all this kind of plants, to have long slender pointed leaves, a jointed stalk, and a flowering head, either in the form of a close spike, like wheat, or a loose bunch called a panicle, like oats. This head consists of numerous husky flowers, each of which bears a single seed. The bamboo, sugar-cane, and reed, are the largest of this natural family.

Those kinds, the seeds of which are big enough to be worth the labour of separating, are usually termed corn, and form the chief article of food of almost all the nations of the world, for very few are so little civilized as not to raise it. In Europe the principal kinds of corn are wheat, rye, barley, and oats. In Asia, the chief dependence is placed on rice; in Africa and America on maize or Indian corn.

The smaller kinds called grasses, are most valuable for their leaves and stalks, or herbage, which make the principal food of domestic cattle. This cut down and dried is hay, the winter provision of cattle

in all the temperate and northern regions. Grass is most fit to cut after it is in ear, but before its seeds are ripened. If it be suffered to grow too long, it will lose its juices and become like the straw of corn. The latter part of June is the beginning of hay-harvest for the southern and middle parts of the kingdom. This is one of the busiest and most agreeable of rural occupations; both sexes, and all ages, are engaged in it: the fragrance of the new mown grass, the gaiety of all surrounding objects, and the genial warmth of the weather, all conspire to render it a season of delight and pleasure to the beholder.

Now swarms the village o'er the jovial mead;
The rustic youth brown with meridian toil.
Healthful and strong; full as the summer rose
Blown by prevailing suns, the village maid,
Her kindled graces burning o'er her cheeck.
E'en stooping age is here; and infant hands
Trail the long rake, or, with the fragrant load
O'ercharg'd, amid the kind oppression roll.
The russet hay-cock rises thick behind,
In order gay.

THOMSON.

The increasing warmth of the year calls forth fresh kinds of insects. Of those

which appear during this month the chief are the grass-hopper; beetle; and various kinds of flies; and the formidable gadfly, a single one of which strikes terror into the largest herd of cattle, for it is in the skin of the back of these animals that this insect lays its eggs.

The principal season for taking that delicate fish, the mackarel, is in this month.

About this time also birds cease their notes; for after the end of June an attentive observer heard no birds except the stone curlew whistling late at night; the yellow-hammer, goldfinch, and golden crested wren, now and then chirping. The cuckoo's note also ceases about this time.

> The groves, the fields, the meadows, now no more
> With melody resound. 'Tis silence all,
> As if the lovely songsters, overwhelmed
> By bounteous Nature's plenty, lay intranc'd
> In drowsy lethargy.

Some of the most observable plants in flower are the vine; the wood-spurge, and wood-pimpernel, the one in dry, the other in moist thickets; buckbean, water iris, and willow-herbs, in marshes; meadow cranesbill, and corn-poppy, in fields;

mullein, foxglove, thistles, and mallow, by road-sides and in ditch banks; and that singular plant the bee orchis, in chalky or limestone soils.

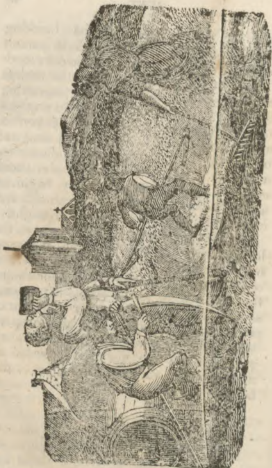
Gooseberries, currants, and strawberries, begin to ripen in this month, and prove extremely refreshing as the parching heats advance. About an hour before sunset, in the mild evenings of this month, it is highly amusing to watch the common white or barn owl in search of its prey, which consists almost wholly of field-mice. The large quantity of soft feathers with which this bird is covered, enables it to glance easily, and without noise, through the air. Its manner of hunting is very regular, first beating up the side of a hedge, then taking a few turns over the meadow, and finishing by the opposite hedge, every now and then dropping among the grass in order to seize its food. It has been found by careful observation, that when a pair of owls have young, a mouse is brought to the nest about once in every five minutes.

Another interesting nocturnal bird is the goat-sucker, or fern-owl, nearly allied to the swallow in its form, its mode of flight, and food: it is by no means common, but

may be occasionlly observed hawking among the branches of large oaks in pursuit of the fern-chaffer, which is its favorite food.

The balmy evenings, about the middle of this month, offer yet another interesting object to the naturalist; this is the angler's may-fly, the most short-lived in its perfect state of any of the insect race; it rises out of the water, where it passes its infant state about six in the evening, and dies about eleven at night. They usually begin to appear about the fourth of June and continue in succession nearly a fortnight.

On the twenty-first of June happens the longest day: at this time, in the most northern parts of these islands there is scarcely any night, the twilight continuing from the setting to the rising of the sun; so that it is light enough at midnight to see to read. This season is also properly called Midsummer, though indeed, the greatest heats are not yet arrived, and there is more warm weather after it than before.



MOWING.

JULY.

> Deep to the root
> Of vegetation parch'd, the cleaving fields
> And slippery lawn, an arid hue disclose;
> Echo no more returns the cheerful sound
> Of sharp'ning sithe; the mower sinking, heaps
> O'er him the humid hay, with flow'rs perfum'd.

As January is the coldest, soJuly is the hottest month of the year. For though the direct influence of the sun is continually diminishing after the longest day, yet the earth and air have been so thoroughly heated, that the warmth which they retain more than balances for a time the diminution of the solar rays. The effects of this increased heat soon become very striking. The flowers of the former month quickly mature their seeds, shrivel and fall; at the same time their leaves and stalks lose their verdure, and the whole plant hastens to decay. A new generation

advances to supply their place, of plants which require the full influence of our summer suns to bring them to perfection, and which flourish most in situations and seasons when the warmth is most abundant: these are, particularly, the wild carrot and hemlock; the wild thyme; the water and marsh plants, as bulrush, waterlily, marsh St. John's wort, and the thistle, sowthistle, hawkweed, blue-bottle, marygold, golden-rod, camomile, and sunflower.

The animal creation seems oppressed with languor during this hot season, and either seeks the recesses of woods, or resorts to pools and streams to cool their bodies and quench their thirst.

> On the grassy bank
> Some ruminating lie; while others stand
> Half in the flood, and often bending, sip
> The circling surface. In the middle, droops
> The strong laborious ox, of honest front,
> Which incomposed he shakes; and from his sides
> The troublous insects lashes with his tail,
> Returning still.
>
> THOMSON.

The insect tribes, however, are peculiarly active and vigorous in the hottest weather. These little creatures are for

the most part annual, being hatched in the spring, and dying at the approach of winter. They have therefore, no time to lose in indolence, but must make the most of their short existence; especially as their most perfect state bears only a small proportion to the rest of their lives. All insects that live upon, or in the ground, undergo three changes, in each of which they are transformed to a totally different appearance. From the egg they first turn into caterpillars or maggots, when they crawl upon many feet, and are extremely voracious, several kinds of them doing much mischief in gardens, stripping the trees of their leaves, and sometimes devouring the herbage or the ground. This is their state in the spring. They next become nymphs or chrysalises, resembling an infant closely wrapped in swaddling clothes, being motionless, requiring no nourishment, and indeed having scarcely any appearance of life. From this state they burst forth into the aurelia or perfect insect, shining in all its colours, furnished with wings, endowed with surprising activity, capable of propagating its species, and feeding for the most part on thin animal juices, or the honey of flowers. In this state, they continue but

a short time. The male impregnates the female, she lays her eggs, and they both die. Those insects that have passed all their former life in water, as gnats, ephemeras, &c. no sooner undergo the last tranformation than they become incapable of continuing in the water even for a few seconds.

The luxury of cooling shades is now peculiarly grateful; and, indeed, is scarcely desired in this climate longer than a few weeks at the height of summer.

> Welcome, ye shades! ye bow'ry thickets, hail!
> Ye lofty pine! ye venerable oaks!
> Ye ashes wild, resounding o'er the steep!
> Delicious is your shelter to the soul,
> As to the hunted hart the sallying spring.
>
> THOMSON.

Bathing, too, is a delightful amusement at this season; and happy is the swimmer, who alone is able to enjoy the full pleasure of this healthful exercise. The power of habit to improve the natural faculties is in nothing more apparent than in the art of swimming. Man, without practice, is utterly unable to support himself in the water. In these northern countries, the season for pleasant bathing being short, few in pro-

portion can swim at all; and to those who have acquired the art, it is a laborious and fatiguing exercise. Whereas, in hot countries, where from their very infancy, both sexes are continually plunging into the water, they become a sort of amphibious creatures, swimming and diving with the utmost ease, and for hours together, without intermission.

The excessive heats of this period of the year cause such an evaporation from the surface of the earth and waters, that after some continuance of dry weather, large heavy clouds are formed, which, at length, let fall their collected liquor in extremely copious showers, which frequently beat down the full-grown corn, and sometimes deluge the country with sudden floods. Thunder and Lightning generally accompany these summer storms. Lightning is a collection of electric fire drawn from the heated air and earth, and gathered together in the clouds, which at length overcharged suddenly let go their contents in the form of broad flashes or fiery darts. These are attracted again by the earth, and often intercepted by buildings, trees, and other elevated objects, which are shattered by the shock. Thunder is the noise occasioned by

the explosion, and therefore always follows the lightning; the sound travelling slower to our ears, than the light to our eyes. Just the same thing happens when a gun is fired at a distance. When we hear the thunder, therefore, all danger from that flash of lightning is over; and thunder, though so awful and tremendous to the ear, is, of itself, entirely harmless.

The inhabitants of these countries, removed by the goodness of Providence from the extremes of heat as well as cold, can form but an imperfect idea of the overpowering heat of the sun in the middle parts of the earth. The desert of Africa, nearly equal in extent to one half of Europe, being totally destitute of water, is seldom visited by any human being, unless where the merchants, who assemble and travel together for mutual assistance and protection, and form what is called a *caravan*, trace out their dangerous path across it. Here nature during six months of the year denies the rain that falls in other regions, and the scorching rays upon a dry and sandy country make the air feel to the skin like the suffocating vapour from glowing embers; the ground becoming so heated as not to be borne by the naked foot. At

great distances a few spots are seen covered with low stunted shrubs, which serve as a land mark to the caravans, and furnish the camels with a scanty forage; in other parts the traveller is surrounded by a vast extent of barrenness, "an ocean of sand," where the eye finds no particular object to rest upon, and the mind is filled with apprehension of perishing for want of water. In this dreary solitude, he will sometimes meet with the bones of men and camels in heaps, marking the spot where the caravan sunk under fatigue and thirst.

The plants which flower this month, beside those already mentioned, are the potatoe and hop; the meadow-sweet; the pimpernel, cockle, and fumitory in cornfields; the delicate bluebell in wastes or by road sides; and the nasturtium, jasmine, and white lily in gardens. The pure white flowers of the latter, elevated upon their tall stalk, give an agreeable sensation of coolness to the eye.

The effects of the great heat on the human body are allayed by the various wholesome fruits which this season offers. Those which are now ripe are of all others the most cooling and refreshing; as currants, gooseberries, raspberries, strawber-

F 3

NATIONAL LIBRARY

ries, and cherries. These are no less salutary and useful, than the richest productions of the warmer climates.

That agreeable article of luxury, the mushroom, about this time also appears above ground; and numbers of that useful fish, the pilchard make their appearance, and are taken off the coast of Cornwall. This is a small fish, and like a herring; though very good food when fresh, it is much better when salted.

During this month young frogs migrate from the breeding ponds, and betake themselves to the shelter of the long grass. The large beetle now makes its appearance. The present is also the season when bees begin to expel and kill the drones; and at this time too, the flying ants quit their nests, and disperse to found new colonies.

As the ant is the animal which has passed into a proverb for its supposed frugality, foresight, and industry, it will be amusing to correct in a few words the erroneous opinions that have been entertained concerning it, by giving a short sketch of its manners and habits.

Ants, like bees and most other insects that dwell in large communities, are divided into male, female, and neuter. Of these,

the neuters or labourers are without wings, the males and females have wings, and are distinguished from each other by the superior size of the females. Their dwelling is called an ant-hill, which is generally situated at the foot of a tree, under a wall, or in any place sufficiently exposed to the sun and sheltered from the cold. In Africa, the habitation of the white ant is often found from twelve to fifteen feet high, built of clay and wood in the most durable manner and looking very much like a large hay-cock; the wild Bulls of Africa, when grazing near one of them, always station a sentinel on the top, to warn them, if an enemy approach; and the summit is so large that six men can stand there with ease. In the hill are three or four passages that lead obliquely down, a foot or more, to a large vaulted chamber; the centre of which is the habitation and place of general assembly for the old ones, while the eggs and young worms are ranged in orderly lines between the centre and sides.

If one of these chambers be opened in the winter, it will be found to contain some eggs and a considerable number of labourers alone, in a state of torpor. As the spring advances, the ants begin their la-

bours, the eggs hatch, and going through the usual process disclose a considerable proportion of labourers and a few males and females; the young females soon begin to deposit their eggs, and the hill swarms with inhabitants. About the latter end of July the males and females either emigrate, or are expelled by the labourers, the males wander about for a time and soon die, but the impregnated females immediately set about scooping holes in the ground in which they deposit their eggs, and thus each becomes the mother of a new colony: two or three hundred of the eggs are usually converted into labourers before winter: at the approach of cold weather the mother dies, the remainder becomes torpid till the succeeding spring, when they recommence their work. The stock of eggs is hatched into labourers, males and females; and the population of the colony rapidly increases during the summer. They lay up no provisions, not even for a single day; and, during boisterous rainy weather, are therefore obliged to be contented with a very scanty share of food. They prey upon almost every animal or vegitable substance, particularly beetles, caterpillars, dead mice, rats, or frogs, honey, the

sugary juices that come out from the leaves of trees, and fruits of every kind. One kind of ant is so voracious as to attack every animal that comes in its way, and frequently a deer or hog or other larger animal having been killed and left to lie on the ground in the evening, it has been found, that this active little insect, has before morning, entirely cleared away the flesh from the bones and left nothing but the skeleton remaining. They are sometimes successfully employed in clearing trees of caterpillars, by smearing the trunk for a few inches with tar or any other adhesive matter, and then turning a number of ants loose on the branches; for their escape being prevented by the girdle of tar, they are under the necessity of continuing in the tree, and having no other food, will in a short time devour or expel all the caterpillars. When one ant, or a few, meet with a larger quantity of provision than they are able to convey to the nest, they return and inform their comrades, who sally forth in a large body to carry off the prize. In America, and on the African coast, there occasionally happens an inroad of such infinite multitudes as to be an object of serious alarm, even to the human

inhabitants; of one of these incursions the following quotation is a curious account.

"During my stay," says Smith, "at Capecoast Castle, a body of these ants came to pay us a visit in our fortification. It was about day-break when the advanced guard of this famished crew entered the chapel, where some negro servants were asleep on the floor. The men were quickly alarmed at the invasion of this unexpected army, and prepared as well as they could for a defence. While the foremast battalion of insects had already taken possession of the place, the rear guard was more than a quarter of a mile distant; the whole ground seemed alive, and crawling with unceasing destruction. After deliberating a few moments on what was to be done, it was resolved to lay a large train of gunpowder along the path they had taken; by this means millions were blown to pieces, and the rear-guard perceiving the destruction of their leaders, thought proper instantly to return, and make back to their original habitation."

Some further idea, of the destructive power of the ant, may be collected, from the ravages it committed in the island of Grenada, in the West Indies, in the year

1777, such multitudes of them covered every spot, that it was thought necessary, to burn the whole of the sugar canes, at that time, growing on the Island, and to turn up the ground, in order to get at them; all these means, however, were unsuccessful, and the Planters must have given up the cultivation of the sugar cane altogether, if the rain had not set in with great violence, at the very time when every other effort had been found unavailing. The ant is an animal that multiplies very fast; but, on this occasion, they came down from the hills, in such amazing numbers, as to cover the ground for many miles; many domestic animals were destroyed by them, they attacked rats and mice and even birds which they seized wherever they alighted. Streams of water only stopped them for a short time; the first column boldly pushed into the water and of course perished, but their numbers left an embankment which allowed the rest to pass over in security; fires were lighted in their track, but this which often terrifies the largest beasts of prey was quite fruitless, they rushed into the fire in such bodies as to put them out, and though great numbers were thus destroyed, the remainder were able to continue their march unhurt.

The ant, however, is not always so destructive a visiter; and their appearance in less numerous bodies is often an advantage, because they seize upon and devour snakes and other venemous reptiles; in Surinam, one species of ant, is called the ant of visitation, as it appears only at certain times every two or three years; on its approach, the natives give it a cheerful welcome; every apartment is thrown open to receive them; they penetrate every where, rummage every hole or corner for the food they are fond of, and remain until they have cleared the place of rats, mice, scorpions, &c. which had taken up their abode there.

Poultry moult during this month; and young patridges are found among the corn.

The first broods of swallows and martins now begin to gather together, and before they come to their full strength and command of wing, suffer severely from the attacks of hawks and other birds of prey.

The farmer's chief employment in July is getting home the various products of the earth. It is the principal hay-month in this kingdom, and the work people suffer much fatigue from the excessive heat to which they are exposed.

Flax and hemp are pulled in this month. These plants are cultivated in various parts of Europe, more than in England. The stalks of both are full of tough fibres or strings, which, separated and prepared in a particular manner, become fit for spinning into thread. Of flax, linen is made, from the finest cambric to the coarsest canvass. Hemp is chiefly used for coarse cloth, such as strong sheeting and sacking; but it is sometimes wrought to considerable fineness; it is also twisted into ropes and cables.

The corn-harvest begins in July, in the southern parts of the island; but August is the principal harvest-month for the whole kingdom.

AUGUST.

Fair Plenty now begins her golden reign,
The yellow fields thick wave with ripen'd grain;
Joyous the swains renew their sultry toils,
And bear in triumph home the harvest's wealthy spoils.

The commencement of this month is still hot, and usually calm and fair, and those vegetable productions that yet require the powerful influence of the sun are daily advancing to maturity. The farmer beholds the chief object of his culture, and the principal source of his riches, waiting only for the hand of the gatherer. Of the various kinds of grain, rye and oats are usually the first ripened: this, however, varies with the time of sowing, and some of every species may be seen at once fit for cutting.

Every fair day is now of great importance, since, when the corn is once ripe, it is liable to continual damage while standing, either from the shedding of the seeds, the plundering of birds, or sudden storms. The utmost diligence is therefore used by the careful husbandmen to get it safely housed, and labourers are hired from all quarters to hasten the work.

This interesting scene is beheld in full perfection only in the open field countries, where the sight can at once take in an uninterrupted extent of land waving with corn, and a multitude of people engaged in the various parts of the labour. There is no prospect more generally pleasing than this, and it affords a striking example of the effect of the heart and feelings, in converting into a most delightful view, that which, in itself considered, is certainly far inferior in variety and beauty to what is daily passed by with indifference or even disgust.

The gathering in of the harvest is a scene that addresses itself not so much to the eye as the heart, and the emotions that it gives birth to, are not so much those of delight and surprise, as the satisfactory termination of anxiety, and, in consequence,

benevolence to man, and gratitude to the Being who fills our stores with plenty, and our minds with gladness.

> Be not too narrow, husbandmen! but fling
> The lib'ral handful. Think, O! grateful think,
> How good the God of harvest is to you,
> Who pours abundance o'er your flowing fields.
>
> THOMSON.

In a late season, or where favourable opportunities of getting in the harvest have been neglected, the corn often suffers greatly from heavy storms of wind and rain. It is beaten down to the ground, the seeds are shed, or rotted by moisture: or if the weather continues warm, the corn grows, that is, the seeds begin to put out shoots. Grain in this state is sweet and moist: it soon spoils by keeping: and bread made from it is clammy and unwholesome.

Harvest concludes with the field pease and beans, which are suffered to become quite dry and hard before they are cut down. The blackness of the bean pods and stalks is disagreeable to the eye, though the crop is valuable to the farmer. In England, they are used as food for cattle only, as the nourishment they afford,

though strong, is gross and heavy: but in most of the other European countries they contibute largely to the sustenance of the lower classes.

The rural festival of harvest-home is an extremely natural one, and has been observed in almost all ages and countries. What can more gladden the heart than to see the long-expected products of the year, which have been the cause of so much anxiety, now safely housed, and beyond the reach of injury?

The poor labourer, too, who has toiled in securing another's wealth, justly expects to partake of the happiness. The jovial harvest-supper cheers his heart, and induces him to begin, without murmuring, the preparations for a future harvest.

Hops, which are much cultivated in some parts of England, afford their valuable produce generally in this month. The hop is a climbing plant, sometimes growing wild in hedges, and cultivated on account of its use in the making of malt liquors. Having large long roots, they flourish best in a deep and rich soil: and are set in small hills at regular distances from each other; about five plants, and three long poles for them to run upon, being placed

in each hill. They appear above ground early in the spring, and as they grow fast, have generally by the latter end of June, or the beginning of July, reached the top of the poles, which are from sixteen to twenty feet long, after which they push out many lateral shoots, and begin to flower. At this time, the hop gardens make a most beautiful appearance, the poles being entirely covered with verdure, and the flowers hanging from them in clusters and light festoons. The hops, which are the scaly seed-vessels or pods of the plants, are picked as soon as the seed is formed: for which purpose, the poles are taken up with the plants clinging to them, and the hops picked off by women and children, after which they are dried over a charcoal fire, and exposed a few days to the air in order to take off the crispness produced by the heat; they are then closely packed up in sacks and sent to market, where they are purchased by the brewers, who employ them in giving the fine bitter flavour to their beer, which both improves its taste, and makes it keep longer than it otherwise would do. This crop is perhaps the most uncertain of any, on which account, hops are a commodity that is more the object of

commercial speculation than any other. The plants are infested by grubs that harbour in their roots, and greatly delay, and sometimes entirely prevent, their shooting; and these grubs changing into flies, swarm upon and destroy the leaves and shoots of such as escaped them in their grub state: this pest is called the fen. Blights, too, of various sorts, both with and without insects, often frustrate the hopes of the cultivator, and in a few days, desolate the most promising plantations. No effectual remedy has yet been found for these evils.

The number of plants in flower is now very sensibly diminished. Those of the former months are running fast to seed, and few new ones supply their places. The uncultivated heaths and commons are now, however, in their chief beauty, from the flowers of the different kinds of heath or ling, with which they are covered, so as to spread a rich purple hue over the whole ground.

Several sorts of the numerous tribe of ferns begin now to flower. The uses of this numerous tribe of plants are many and important: growing in places where few other vegetables will flourish, as heaths, commons, marshes, and woods, they afford

by their broad spreading leaves a very acceptable shelter to various birds and small quadrupeds, as well as to the more lowly and tender plants; the sweet slime or pulp with which their roots abound, gives nourishment to many insects, and contributes to the sustenance of the human species in the northern and most barren parts of the globe: in this country, the common brakes are made use of for littering cattle, and thatching, and, when green, are burnt in great quantities for the kelp that they contain.

Some of the choicest wall fruits are now coming into season.

> The sunny wall
> Presents the downy peach, the shining plum,
> The ruddy fragrant nectarine, and dark
> Beneath his ample leaf, the luscious fig.

The insects that make their appearance during this month, are, one of the kinds of solitary bees; some of the latest butterflies; and the white moth. Flies also abound in windows at this period. Bulls begin their shrill autumnal bellowing.

About the 12th of August, the largest of the swallow tribe, the swift, or long-wing,

disappears. As the weather is still warm, they cannot be supposed to retire to holes and caverns, and become torpid during the winter; and being so admirably formed for flight, it can scarcely be doubted that they now migrate to some of the southern regions. Nearly at the same time, rooks no longer pass the night from home, but roost in their nest trees. Young broods of goldfinches are still seen; lapwings and linnets begin to collect; and the redbreast, one of our finest though commonest, songsters, renews his music about the end of the month.

REAPING.

SEPTEMBER.

Now soften'd suns a mellow lustre shed,
The laden orchards glow with tempting red,
On hazel boughs the clusters hang embrown'd,
And with the sportsman's war the new-shorn fields
resound.

THIS is, in general, a very pleasant month, the distinguishing softness and serenity of autumn prevailing through great part of it. The days are now very sensibly shortened, and the mornings and evenings are chill and damp, though the warmth is still considerable in the middle of the day. This variation of temperature is one cause why autumn is an unhealthy time, especially in the warmer climates, and in moist situations; persons who are obliged to go abroad early or late in this season should be guarded by warm clothing against the cold fogs.

Of late years, and especially in the northern parts of the island, a good deal of corn is abroad at the beginning of September; on which account, the day on which partridge-shooting commences was a few years ago deferred by the legislature from the first to the fourteenth of this month.

The partridges feed on grain and other seeds, which they find by scratching up the earth; and they live chiefly on the ground, making much use of their legs, and little of their wings.

Partridges pair early in the spring and about the month of May lay their eggs to the number of sixteen or eighteen, in a shallow hole on the bare ground; the hen sits twenty two days, and the young come forth full feathered like chickens, and capable of running, and picking up ants, slugs, grain, or any other food that is shown to them by their parents

While the corn is standing, they have ready and safe retreat from most of their numerous enemies, and when they happen to be surprised, will exhibit wonderful instanees of instinct in their attachment to their young, and of courage and skill in their defence. If danger approaches their young brood before they are able to fly,

both the parents immediately take wing, and the young ones cower down under the nearest shelter, where they remain perfectly motionless; the hen after having flown two or three hundred yards, lights on the ground, and immediately running along the furrows, soon arrives at the place whence she set out, collects her little family, and withdraws them to a place of safety; the cock, in the mean time, endeavours to engage the attention of the sportsman, by fluttering before him a few yards at a time, as if wounded, and thus draws him, in the eagerness of pursuit, to a sufficient distance from his young: after which, when all danger is over, the call of the female directs him to her retreat. In the absence of the cock, the hen will take this part upon herself. Of this an interesting example is found in White's Naturalist's Calendar.

"A hen partridge came out of a ditch, and ran along, shivering with her wings, and crying out as if wounded, and unable to get from us. While the dam acted this distress, the boy who attended me saw her brood, that was small and unable to fly, run for shelter into an old fox-earth under the bank."

When the corn is cut, partridges generally resort in the day-time to groves and covers, to be out of the reach of birds of prey; but at night the dread of foxes, weasels, and other small wild quadrupeds that haunt these sheltered places, drives them in the open stubble, in the middle of which they nestle together, and spend the hours of darkness. Their most formidable enemy, however, is man, from whom they have no means of escape: his pointers discover them in their most secret hiding places, and either oblige them to take wing and expose themselves to be shot, or to endure the still greater danger of being enclosed in nets on the ground by whole coveys at once.

In his mid career, the Spaniel struck
Stiff by the tainted gale, with open nose,
Outstretched, and finely sensible, draws full,
Fearful and cautious, on the latent prey;
As in the sun the circling covey bask
Their varied plumes, and watchful, every way
Through the rough stubble turn the secret eye.

THOMSON.

Partridges abound in Spain, and afforded much amusement to the Officers of the British Army, during the late war in that

Country. The birds are so fat that they can fly but a short way; the Officers, therefore, used to mark where the bird pitched, and then rode quickly to the spot; the partridge got on the wing, but as the country is quite open and free from enclosures, the horseman soon came up to him; after two or three more attempts, the bird, quite exhausted and unable to fly, ran along the ground, and was easily caught by a dog, or knocked down with a stick.

A singular vegetable production, which is gathered this month, is saffron. The saffron plant is a kind of crocus, cultivated chiefly in Essex, and a considerable tract of ground, about ten miles across, between Cambridge and Saffron-Walden. The saffron grounds vary in extent from one to three acres, which, after being well manured, are planted some time in the month of July, allowing about 200,000 roots to an acre: these flower successively for about three weeks in September, and the blossoms are collected every day before they are thoroughly expanded: when gathered, they are immediately spread upon a large table, and the fine branched filaments on the inside of the flower, called stamens, or chives, are pulled out by women and

children; all the rest is thrown away. The crop thus procured is dried in flat square cakes, and then becomes ready for sale. A saffron-ground lasts three years; and on an average yields for the first crop about ten pounds of wet saffron, or two of dried, per acre; the produce of the two next years is about twenty-four pounds of dried: so that the whole useful produce of an acre in three years, is not more than twenty-six pounds weight. Saffron is of a deep orange colour, and a very strong aromatic odour: it is used in medicine as a cordial, and was formerly much esteemed in cookery. It gives a fine bright yellow dye. That produced in England is generally esteemed the best.

Very few other flowers, except the ivy, open in this month; but some degree of variety is introduced into the landscape by the ripening fruits.

The labours of the husbandman have but a very short intermission; for no sooner is the harvest gathered in, than the fields are again ploughed up and prepared for the winter corn, rye, and wheat, which is sown during this month and the next.

At this time, it is proper to straiten the entrance of bee-hives, that wasps and other

robbers may have less opportunity of getting in and devouring the honey.

The annual arrival of the herrings offers at this time a peculiar and valuable harvest to the inhabitants of the eastern and western coasts of the island.

The great haunt of the herrings during winter is in the northern sea, where they continue many months to recruit themselves after spawning in those unfathomed depths, that swarm with insects upon which they feed. This innumerable army begins to put itself in motion in the spring, in order to deposit its spawn in the warmer latitudes. Its forerunners appear off the Shetland islands in April and May, but the grand shoal does not appear till June: it is attended by gannets and other sea birds, in prodigious multitudes, and vast numbers of dog-fish and porpoises, all of which are supported without sensibly diminishing a host, in which millions more or less are of no account. The breadth and depth of the main body is such as to alter the appearance of the very ocean; it is divided into distinct columns of five or six miles in length, and three or four in breadth, driving the water before them with a very perceptible rippling: sometimes they sink for the space of

ten or fifteen minutes, then rise again to the surface, and in bright weather exhibit a resplendency of colours like a field of gems.

The first check that this army experiences in its march southwards, is from the Shetland isles, which divide it into two parts; the eastern wing passes on towards Yarmouth, the great and ancient mart for herrings, filling every bay and creek with its numbers; it then advances through the British channel, and disappears. The western wing, after offering itself to the great fishing stations in the Hebrides, proceeds towards the north of Ireland, where it is obliged to make a second division: the one takes to the western side, and is scarcely perceived, being soon lost in the immensity of the Atlantic; but the other, passing into the Irish sea, feeds and rejoices the inhabitants of most of the coasts that border on it.

Towards the end of the month, the chimney or common swallow disappears. There have been various conjectures concerning the manner in which these and some of their kindred birds dispose of themselves during the winter. The swift is the only one of this kind, about which there appears

to be little or no dispute, its early retreat and strength of wing rendering its migration almost certain: but with regard to the rest, namely, the swallow, the martin, and sand-martin, there are three current opinions, each of which deserves consideration.

The first, which is principally adopted by the Swedish and other northern Philosophers, is, that these birds pass the cold months in a torpid state under water. The supposed fact of swallows having been found in a torpid state under water greatly wants confirmation: it is likely enough, indeed, that they may have been drowned, by the rising tide, while roosting, and fished up a few hours after, possibly, even while in a state of suspended animation; but their internal structure wholly unfits them for existing for any length of time under water.

A more probable opinion than the former is, that those species of swallows above mentioned retire like bats to caverns and other sheltered places during the cold weather, where they pass their time in a torpid state, except when, revived by a fine day or two, they are induced by hunger to make their appearance in the open air; for it is a known fact, and one that happens almost every year, that a week of tolerably mild

weather in the middle of winter never fails to bring out a few swallows, who disappear again on the return of the frost. There are also a few instances of swallows having been found torpid in the shafts of old coal-pits, and cliffs by the sea-side. These facts, as far as they go, are conclusive: namely, that some individuals of these birds pass the winter in this country in a torpid state: but the instances are by no means sufficiently numerous to account for the fate of the main body; for from their multitudes, if they all never quitted this country, it ought to be by no means an uncommon thing to discover them in their winter abodes; especially as of late years they have been accurately searched for, and the holes of the sand-martins have been repeatedly laid open without the smallest success.

Concerning the third opinion, the migration of the swallow tribes, it may be observed, that all the birds of this kind are far better flyers than many others whose migration is universally allowed; that the want of food is a very sufficient motive to induce them to retreat to warmer climates; and that the sudden appearance in spring of the main body, and their disappearance in autumn, together with the occasional ap-

pearance of a few during mild weather in the winter months, speaks loudly in favour of migration. But there are yet other more decisive facts to be related in proof of this opinion.

Mr. White, one of the most accurate observers that this country has produced, in his Natural history of Selbourne, says, "if ever I saw any thing like actual migration, it was last Michaelmas day. I was travelling, and out early in the morning; at first there was a vast fog, but by the time that I was got seven or eight miles towards the coast, the sun broke out into a delicate warm day. We were then on a large heath or common, and I could discern, as the mist began to clear away, great numbers of swallows clustering on the stunted shrubs and bushes, as if they had roosted there all night. As soon as the air became clear and pleasant they were all on the wing at once; and by a placid and easy flight, proceeded on southwards toward the sea; after this I did not see any more flocks, only now and then a straggler."

Having thus launched our swallows, let us follow them in their course across the sea. In the spring of the year, Sir Charles Wager on his return up channel from a

cruise, during some very stormy weather, as soon as he came near land, fell in with a large flock of swallows, who immediately settled like a swarm of bees on his rigging; they were so tired as to suffer themselves to be taken by hand, and so much wasted from the long heavy gales that they had to contend with, as to be reduced to mere skin and bone. After resting themselves for the night, they renewed their flight next morning. Willoughby, the first British writer on birds, during a visit in Spain, observed multitudes of half-starved swallows in the province of Andalusia, on their progress to the south. And the brother of Mr. White before mentioned, who resided a considerable time at Gibraltar, had ocular demonstration during the spring and autumn, of the migration of birds across the Straits, among which were thousands of the swallow tribe, and many of our soft-billed birds of passage. In passing these Straits, they scour and hurry along in little separate parties of six or seven in a company, and sweeping low just over the land and water, direct their course to the opposite continent at the narrowest passage that they can find. They usually slope across the

bay to the south-west, and so pass over to Tangier.

From all the above facts, it seems to be pretty evident that swallows do not spend the winter under water: that a few, probably some of the later broods, remain with us during the winter, for the most part in a state of drowsiness: but that the main body migrates across the channel to Spain, and thence at Gibraltar passes to the northern shores of Africa, returning by the same road, in the spring, to Great Britain.

When Autumn scatters his departing gleams,
Warn'd of approaching Winter, gather'd play
The swallow-people; and toss'd wide around,
O'er the calm sky, in convolution swift.
The feather'd eddy floats; rejoicing once,
Ere to their wintry slumbers they retire.

THOMSON.

Beside the swallow tribe, many other of the small soft-billed birds that feed on insects disappear on the approach of cold weather. To judge from their diminutive size and feebleness of wing, it would scarcely be imagined that these could possibly emigrate. It is probable, indeed, that numbers of them are annually lost in attempt-

ing to cross the sea, but from their having been actually seen crossing the straits of Gibraltar to Africa late in autumn, and returning northward early in spring; and from there being no instance on record of their having been seen during our winters, either in a state of sleep, or roused into activity by a warm day, there seems no reason to doubt the reality of their emigration.

On the other hand, some birds at this season arrive from still more northerly countries to spend the winter with us. The fieldfare and redwing, whose departure was mentioned in March, return about the end of September; at which time also an internal migration takes place of the ring-ouzel from the mountains of Wales, Scotland, and the north of England, to the southern coast and other sheltered situations. These three kinds feed chiefly on the berries, with which our woods and hedges are plentifully stored, the greater part of the winter.

The wood-owl now begins to hoot, the stone-curlew to clamour; and those sweet and mellow toned songsters, the wood lark, thrush, and blackbird, commence at this time their autumnal music.

Very few insects come forth so late in the season: some, however, now make their appearance.

The most useful fruit that this country affords, the apple, successively ripens, according to its several varieties, from July to October: but the principal harvest of them is about the close of this month. They are now gathered for the *cider-making*, which in some counties of England, particularly Worcestershire, Somersetshire, and Devonshire, is a busy and important employment; but, like the hop, it is so uncertain a produce, as to render it unwise for the cultivator to place his chief dependence on it.

The apples, after being carefully gathered, are laid awhile to mellow, and then crushed in a mill, and pressed till all their juice is extracted. This, after being fermented, becomes cider, which may properly be called apple-wine. Pears treated in the same manner yield a vinous liquor called perry. The richest and strongest kinds are distributed for sale over the whole country, and the inferior sorts serve as common drink in the districts where they are produced.

There is, perhaps, no country where the

cultivation of the apple and pear trees might be turned to so good an account as in Ireland. The person who planted an orchard would find a ready sale for his fruit, since every year, great quantities are brought hither from France, America and Holland, tho' we have many varieties far superior to any that come from abroad, which, of course, would be preferred, and others might be easily introduced by grafting. Good tillage land will probably yield sufficient to support the farmer and his family, and to pay back the expenses of cultivation; but an orchard, with proper care and industry on the part of the gardener, will afford a great deal more profit. In Holland and the Netherlands, where apples are an article of commerce, an acre of them will sell for ten pounds, though the price on the spot is not more than six pence of our money for the hundred. The trees are planted in regular rows, allowing a good quantity of grass to grow between each couple, added to which, though they require care and attention, there is no money to be laid out for seed.

Another agreeable product of our thickets and gardens, the hazel-nut is fit for gathering at this time.

The oak now begins to shed its acorns, and the nuts fall from the beech, both of which have the name of mast. These, in the extensive woodland tracts of the Continent, afford a plentiful food to the swine, which are allowed to range in them at this period. In England, most of the old forests are fallen to decay, but in the few that still remain in the southern parts of the island, particularly the New forest, this annual supply of what in the earlier times was the chief food of man, affords for six weeks, from about the end of September, a luxurious pasturage to the hogs that are kept on the borders of the forest. In Mr. Gilpin's elegant Remarks on Forest Scenery, there is a very entertaining account of the manners and management of the hogs during the time of their autumnal residence in the woods: from which the following account is extracted.

"The first step the swineherd takes, is to look out for some close sheltered part of the forest, where there is a conveniency of water, and plenty of oak or beech mast; the former of which he prefers when he can have it in abundance. He next fixes on some spreading tree, round the bole of which he wattles a slight, circular fence of

the dimensions he wants; and, covering it roughly with boughs and sods, he fills it plentifully with straw or fern.

"Having made this preparation, he collects his colony among the farmers, with whom he commonly agrees for a shilling a head, and will get together a herd of five or six hundred hogs. Having driven them to their destined habitation, he gives them a plentiful supper of acorns or beech mast, which he had already provided, sounding his horn during the repast. He then turns them into the litter, where, after a long journey and a hearty meal, they sleep deliciously.

"The next morning he lets them look a little around them, shews them the pool or stream where they may occasionally drink, leaves them to pick up the offals of the last night's meal, and, as evening draws on, gives them another plentiful repast under the neighbouring trees, which rain acorns upon them for an hour together at the sound of his horn. He then sends them again to sleep.

"The following day, he is perhaps at the pains of procuring them another meal, with music playing as usual. He then leaves them a little more to themselves,

having an eye, however, on their evening hours. But as their bellies are full, they seldom wander far from home, retiring commonly very orderly and early to bed.

"After this he throws his stye open, and leaves them to provide for themselves; and henceforward has little more trouble with them during the whole time of their migration. Now and then in calm weather, when mast falls sparingly, he calls them together, perhaps by the music of his horn, to a meal which he gathers for them; but in general they need little attention, returning regularly home at night, though they often wander in the day two or three miles from their stye. There are experienced leaders in all herds, which have spent this roving life before; and can instruct their juniors in the method of it. By this management, the herd is carried home to their respective owners in such condition, that a little dry meal will soon fatten them."

On the twenty-second of September, the days and nights are equal all over the earth. This is generally attended with heavy storms of wind and rain, which throw down much of the fruit that yet remains on the trees.

By the end of this month the leaves of many trees lose their green colour, and begin to assume their autumnal tints, which, however, are not complete till the ensuing month.

OCTOBER.

The fading many-coloured woods.
Shade deep'ning over shade, the country round
Imbrown; a crowded umbrage, dusk and dun,
Of every hue, from wan declining green
To sooty dark.

The chief business of nature at this season, as far as concerns the vegetable world, appears to be the scattering of the seeds. Now seeds are scattered by the hand of nature in various manners. Those of them which are furnished with plumes, or wings, are dispersed far and wide by the high winds which arise about this time. Hence plants with such seeds are of all others the most generally to be met with; as dandelion, groundsel, ragwort, thistles, &c. Others, by means of hooks with which they are furnished, lay hold of passing animals, and are thus carried to

distant places. The common burs are examples of this contrivance. Several when ripe are thrown out with considerable force from their receptacle by means of a strong spring, of which the touch-me-not, and all the species of cardamine, or cuckoo-flower, are instances. Many are contained in berries, which being eaten by birds, the seeds are discharged again uninjured, and grow wherever they happen to light. Thus has nature carefully provided for the propagation and wide distribution of her vegetable offspring.

The gloom of the declining year is, however, during this month, enlivened by the variety of rich and bright colours exhibited by the fading leaves of shrubs and trees.

To these fugitive colours are added the more durable ones of ripened berries, a variety of which now adorn our hedges. Among these are particularly distinguished the hip, the fruit of the wild rose; the haw of the hawthorn; the sloe of the black-thorn; the blackberry, of the bramble; and the berriesof the bryony, privet, honey-suckle, elder holly, and woody night-shade. These are a valuable supply for the birds during the cold weather; and it is said, upon the

authority of lord Bacon, that they are most plentiful when the ensuing winter is to be most severe.

The royston or hooded crow, which breeds in Scotland and other northern regions, migrates to the southern districts of this island, being forced by the snow from its native haunts. It is readily distinguished by its ash-coloured back, and black head. Next to the raven, it is the most destructive bird of its kind that is known in this country, destroying lambs and young partridges, and moor-fowl, and picking out the eyes of horses that happen to be entangled in bogs, on which account, in several parts of Scotland, it is pursued, and a reward offered for its head. The wood-cock about this time begins to be found on our eastern coasts, though the main body of them does not arrive till November or December. Various kinds of water-fowl arrive from their northern summer residence in search of a more mild winter on the shores of Britain. About the middle of the month, wild geese quit the fens, and go up to the rye lands, where they devour the young corn.

It is curious and highly amusing to observe the evening proceedings of the rooks

at this period of the year. Just before dusk, returning from the foraging flights of the day, before they betake themselves to roost in their nest trees, they gather in large numbers, and wheeling round in the air, sport and dive in a playful manner, all the while exerting their voices, and making a loud cawing, which being blended and softened by distance, becomes a pleasing murmur, not unlike the cry of a pack of hounds in deep hollow woods, or the tumbling of the tide on a pebbly shore. Stares begin to collect about this time, assembling in the fen countries in such vast multitudes as to destroy by their weight the reeds on which they perch, to the damage of the farmers, who derive no inconsiderable profit from the sale of the reeds, which, for thatching, are superior to every other material.

The weather, during this month, is sometimes extremely misty, with a perfect calm. The ground is covered with spiders' webs innumerable, crossing the paths, extending from shrub to shrub, and floating in the air. This appearance is called *gossamer*, and is caused by an infinite multitude of small spiders, which, when they want to change their place, have a

power of shooting forth several long threads, to which they attach themselves, and thus becoming buoyant, are carried gently through the air as long as they please; after which, by coiling up their threads, they descend very gradually to the ground. A remarkable shower of gossamer is described in the following quotation from White's Natural History of Selbourne. "On September 21st, 1741, being intent on field diversions, I rose before day-break; when I came into the enclosures, I found the stubbles and clover-grounds matted all over with a thick coat of cobweb, in the meshes of which, a copious and heavy dew hung so plentifully, that the whole face of the country seemed, as it were, covered with two or three setting nets drawn one over another. When the dogs attempted to hunt, their eyes were so blinded and hoodwinked, that they could not proceed, but were obliged to lie down and scrape the cobwebs from their faces with their fore-feet."—"As the morning advanced, the sun became bright and warm, and the day turned out one of those most lovely ones, which no season but the autumn produces; cloudless, calm, and serene.

"About nine, an appearance very unusual began to demand our attention, a shower of cobwebs falling from very elevated regions, and continuing without any interruption till the close of day. These webs were not single filmy threads, floating in the air in all directions, but perfect flakes or rags; some near an inch broad, and five or six long. On every side, as the observer turned his eyes, might he behold a continual succession of fresh flakes falling into his sight, and twinkling like stars as they turned their sides towards the sun. Neither before nor after was any such shower observed; but on this day the flakes hung in the trees and hedges so thick, that a diligent person might have gathered baskets full."

The fogs, during this month and the next, are more frequent and thicker than at any other period of the year: The reason of this will be evident from considering the cause of fogs. There is a constant and very large exhalation from the surface of the earth at all seasons, of water in the form of vapour or very thin steam; and the warmer the ground, the greater will be the evaporation. When the air is warmer, or even but a little colder than the earth, the

ascent of vapour is not perceptible to the eye; but when the temperature of the air is considerably lower, the vapour as soon as it rises is deprived of part of its heat, the watery particles are brought more into union, and they become visible in the form of steam; it is also essential to the formation of fog that there should be little or no wind stirring, in order that the rising exhalations may have full opportunity to condense. The heat of the middle of the days in autumn is still sufficient to warm the earth and cause a large ascent of vapour, which the chilling frosty nights, which are also generally very calm, thicken into mists; differing from clouds only in remaining on the surface of the ground.

This month is the height of the hunting season: the temperature of the weather being peculiarly favourable to the sport; and, as the products of the earth are all got in, little damage is done by the horsemen in pursuing their chace across the fields.

> All now is free as air, and the gay pack
> In the rough bristly stubbles range unblam'd;
> For now the farmer levels ev'ry fence,
> Joins in the common cry, and hollows loud,
> Charm'd with the rattling thunder of the field.
>
> SOMERVILLE

It is usually in October that the bee-hives are despoiled of their honey. As long as flowers are plentiful, the bees continue adding to their store; but when these fail, they are obliged to subsist on the produce of their summer labours; from this time, therefore, the hive decreases in value. Its condition is judged of by its weight. The common way of procuring the honey, is by destroying the industrious collectors of it, with the fumes of burning brimstone. This cruel necessity may, however, be prevented by using hives or boxes so contrived as to exclude the bees from the different parts as they become filled; or by employing fumes that will stupify without killing them. In this case, enough of the honey must be left for their subsistence during winter; but this found to deduct so materially from the profits, as to render it a much less usual way than the other.

In most of the wine countries of Europe, the vintage takes place in October. The grape is one of the latest fruits in ripening. When gathered they are immediately pressed, and the juice is fermented like that of apples in making cider. A great variety of wines is produced from the different kinds of grapes, or the difference

of climates where they grow. In England this fruit does not ripen with sufficient constancy to be worth cultivation for the purpose of making wine.

Some of our readers may wish to receive a little more information concerning the grape, and the mode of converting its juice into a liquor so universally used, both for the purpose of medicine and enjoyment. This natural curiosity we shall endeavour to gratify, though in a brief manner. The grape grows upon a long and weak stalk, in large clusters; which become, when ripe, so heavy as to weigh down the branches of the vine to the ground. In consequence of this, the vine would naturally creep along the surface, and most of the grapes would lie upon the earth, deprived both of air and sun. Hence the usual practice of rearing vines is to fasten them to upright sticks by which they may be supported, particularly at the places where the clusters grow; by which means, having free air and heat from the sun's rays, they arrive at an extraordinary size, though at first they are very little.

When the grapes are quite ripe, the clusters are pulled; sometimes with the fibres or little stalks by which they hang,

sometimes without them, according as it is desired to give to the wine a more or less pungent taste. For the stalk has a strongly flavoured juice. They are then put into large vessels, where they are very powerfully pressed, and the juice carefully preserved as it flows from under the press. In a short time, sometimes even in a few hours, if the weather or the place where the juice is kept be very warm, a fermentation commences, which is easily perceived by means of a boiling motion. This fermentation continues for a few days, and when it ceases the liquor falls, and is now become much clearer than it was, by reason of a great quantity of lees or sediment having fallen to the bottom. The juice is not now so sweet as it was; but is much more fragrant to the smell; and, if produced by grapes of a certain kind, is red; it is also much more settled and cool. In this state, it is put into casks, where it undergoes a second fermentation, much slower than the first, and not so strong; in the course of which, its taste and smell are greatly improved, by all the substances which enter into its composition combining more closely together. The wine is kept in these casks until it is quite fit for use, which happens sooner

or later according to the strength and flavour of the grape.

Such is the simple process of making wine, the entire is the work of nature, for little more is required of the people employed about it than to be attentive to the state of the fermentation, and to wait patiently until it be completed. The wine-making season is, in those countries whose climates permit the vine to grow to its full size and maturity, a season of great enjoyment; the pulling of the grapes is accompanied by all the amusement and pleasure which an interchange of wit and good humour can inspire. The persons who are engaged in the employment attack each other with every weapon of wit and pleasantry; and it is quite surprising to perceive the degree of perfection to which they arrive in these attacks and their defences from constant practice. In a word, during the vintage or wine season, every one wears a face of good humour, and it is made, indeed, the time of universal merriment.

This month is particularly chosen, on account of its mildness, for the brewing of malt liquor designed for long keeping, which is therefore commonly called old October.

The first of the month is the day appointed, by act of parliament, for the commencement of the decoy business, which, about the close of October, is at its height. The extensive marsh-lands of Lincolnshire in England, are the tract that is chiefly resorted to by the wild-ducks and other water-fowl, and prodigious numbers of them are annually taken in the decoys.

A decoy is generally made where there is a large unfrequented pond surrounded by wood, and backed by a marshy and uncultivated country. In different quarters of the pond are constructed pipes, as they are called, or narrow ditches, covered with a continual arch of netting suspended on hoops, growing narrower as they advance into the wood, and ending in a purse net. On both sides of the pipe are reed-hedges with intervals between, for the decoy-man to observe what is going on; a number of decoy ducks are also procured, which are taught to lead wild ones into the snare.

As soon as the evening sets in, the decoy rises and the wild-fowl approach the shores to feed during the night; the flapping of their wings may be heard in a still night to a great distance, and is a pleasing though melancholy sound. The decoy ducks soon

meet with the wild ones, and conduct them to the mouth of the snare: the man behind the reeds then throws into the pipe some hempseed, of which these birds are very fond, and thus they are tempted to advance a little way under the netting. A very small dog, well trained for the purpose, is next ordered to play about before the screens, and bark at the ducks, which, vexed at being disturbed by so petty an assailant, advance to drive him off. When they have by this means been seduced a considerable way up the tunnel, the decoy-duck by diving gets out of the arched net, and the man coming from behind the hedge appears at the entrance of the pipe: the wild-fowl, not daring to rush by him, immediately dash forwards into the purse-net, where they are taken.

The farmer continues to sow his corn during this month: and wheat is frequently not all sown till the end of it. When the weather is too wet for this business, he plows up the stubble fields for winter fallows. Acorns are sown at this time, and forest and fruit trees are planted. At the very close of the month a few flowers still cheer the eye; and there is a second blow of some kinds, particularly the woodbine. But the

scent of all these late flowers is comparatively very faint. The greenhouse, however, is in high perfection at this period; and by its contrast with the nakedness of the fields and garden is now doubly grateful.

> Unconscious of a less propitious clime,
> There blooms exotic beauty, warm and snug,
> While the winds whistle and the snows descend.
> The spiry myrtle, with unwith'ring leaf,
> Shines there and flourishes. The golden boast
> Of Portugal and Western India there,
> The ruddier orange and the paler lime,
> Peep through their polish'd foliage at the storm,
> And seem to smile at what they need not fear.

NOVEMBER.

Now the leaf
Incessant rustles from the mournful grove,
Oft startling such as studious walk below;
And slowly circles through the waving air.

As the ripening and dispersing of seeds was a striking character of the last month, so the fall of the leaf distinguishes the present. From this circumstance the whole declining season of the year is often in common language denominated the fall. The melancholy sensations which attend this gradual death of vegetable nature, by which the trees are stripped of all their beauty, and left so many monuments of decay and desolation, forcibly suggest to the reflecting mind an apt comparison for the fugitive generations of man. This quick succession of springing and falling leaves has been thus beautifully applied by Homer.

Like leaves on trees the race of man is found,
Now green in youth, now with'ring on the ground.
Another race the following spring supplies;
They fall successive, and successive rise:
So generations in their course decay,
So flourish these, when those are pass'd away.

POPE'S HOMER.

The loss of verdure, together with the shortened days, the diminished warmth, and frequent rains, justifies the title of the gloomy month of November: and it seems to be felt as such by other animals beside man.

In pensive guise,
Oft let me wander o'er the russet mead,
And through the sadden'd grove, where scarce is heard
One dying strain, to cheer the woodman's toil.
Haply some widow'd songster pours his plaint,
Far, in faint warblings, through the tawny copse,
While congregated thrushes, linnets, larks,
And each wild throat, whose artless strains so late
Swell'd all the music of the swarming shades,
Robb'd of their tuneful souls, now shiv'ring sit
On the dead tree, a dull despondent flock;
With not a brightness waving o'er their plumes,
And nought save chatt'ring discord in their note.

THOMSON.

Intervals, however, of clear and pleasant weather occasionally happen; and in general the autumnal months are, in our island, softer and less variable than the correspondent ones in spring. It long continues.

The pale descending year, yet pleasing still.

In fair weather the mornings are sharp; but the hoar-frost, or thin ice, soon vanishes before the rising sun.

Sudden storms of wind and rain frequently occur, which at once strip the trees of their faded leaves, and reduce them to their state of winter nakedness.

One of the first trees that becomes naked is the walnut, which is quickly succeeded by the mulberry, horse-chestnut, sycamore, lime and ash; the elm retains its verdure for some time longer; the beech and oak are the latest forest trees in casting their leaves: apple and peach-trees often remain green till the latter end of November; and pollard oaks, and young beeches, lose not their withered leaves, till they are pushed off by the new ones of the succeeding spring.

The wood-pigeon, or stock-dove, the latest in its arrival of the winter birds of

passage, makes its appearance about the middle of the month. When pinched by hunger, it will eat the young tops of turnips, but beech mast is its favourite food, and before the old beech woods in the southern parts of the island were so much thinned, the multitudes of stock-doves that annually resorted thither, probably from Sweden and the north of Germany, were almost incredible. They might be seen, like rooks, in long strings of a thousand or more, directing their evening flight to the thick woods, where they were shot in great numbers by the fowlers who awaited their arrival.

Salmon begin now to ascend the rivers in order to spawn; they are extremely active fish, and will force their way almost to the source, of the most rapid streams, overcoming with surprising agility cataracts and other obstacles to their passage. There are several salmon leaps, as they are called, in Wales, Scotland, and Ireland; at which numbers of fish are taken by nets or baskets placed under the fall, into which they are carried after an unsuccessful leap.

The farmer endeavours to finish all his ploughing in the course of this month, and then lays up his instruments till the next spring.

Cattle and horses are taken out of the exhausted pastures, and kept in the yard or stable. Hogs are put up to fatten. Sheep are turned into the turnip-field, or in stormy weather fed with hay at the rick.

Bees require to be moved under shelter, and the pigeons in the dove-house to be fed.

PLOUGHING.

DECEMBER.

O Winter! ruler of th' inverted year,
Thy scatter'd hair with sleet like ashes fill'd,
Thy breath congeal'd upon thy lips, thy cheeks
Fring'd with a beard made white with other snows
Than those of age, thy forehead wrapp'd in clouds,
A leafless branch thy sceptre, and thy throne
A sliding car indebted to no wheels,
But urg'd by storms along its slipp'ry way;
I love thee, all unlovely as thou seem'st,
And dreaded as thou art.

COWPER'S TASK.

This month is, in general, the most unpleasant of any in the whole year: the day is rapidly decreasing, and the frost being seldom fully confirmed till quite the latter end of the year, or the commencement of the next, vapours, and clouds, and storms, form the only vicissitudes of weather, thus fully justifying the expression in Shakespeare.

The rain and wind beat dark December.

Every change seems only an advance towards the stagnation and death of nature, towards universal gloom and desolation.

> No mark of vegetable life is seen,
> No bird to bird repeats his tuneful call,
> Save the dark leaves of some rude evergreen,
> Save the lone redbreast on the moss-grown wall.
>
> SCOTT.

Several of the wild quadrupeds and amphibious animals now retire to their winter quarters which they never, or but seldom, quit till the return of spring. Of these, some lay up no stores of provision, and therefore become entirely torpid till the warm weather brings out them and their food at the same time. To this class belong the frog, the lizard, the badger, hedgehog, and bat, all of which feed on insects or vegetables. The frog shelters itself in the mud at the bottom of ponds and ditches; the lizard, badger, and hedge-hog, retire to holes in the earth; and the bat makes choice of caverns, barns, deserted houses, and coal-pit shafts, where it remains suspended by the claws of its hind feet, and closely wrapt up in its wings or the membranes of the fore-feet. Bats, however,

are observed to be stirring at all times of the year, when the warmth of the evening allows them; and a very moderate heat is found sufficient to revive the various species of gnats which are the favourite food of this animal.

Dormice also lie torpid the greater part of the winter, though they lay up considerable stores of food; an occasional warm day revives them, when they eat a little, but soon relapse into their former condition

Squirrels, water-rats, and field-mice, provide large magazines of provision, the former of nuts, the others of acorns, potatoes, &c. They are not known to become torpid, though they stir but little abroad, and probably sleep more at this time than in the summer.

On the 21st of December happens the shortest day: soon after this, frost and snow generally begin to set in for the rest of the winter. The farmer has little to do out of doors in the course of this month. His principal attention is bestowed on the feeding and management of his cattle, and various matters of household economy.

The farmer ought particularly to watch the weather, and be careful that his cattle be sheltered at night, for if a heavy fall of

snow be accompanied by a high wind, the drifts increase so fast as often to seize on and enclose the cattle; nay sometimes it has happened that human beings have been thus surrounded and imprisoned by the sudden heaping together of the snow. A remarkable and well authenticated case of a woman surviving nearly eight days buried in the snow, without food, occurred in the spring of the year 1799, near Impington, in Cambridgeshire. Elizabeth Woodcock, aged forty-two, of a slender delicate make, on her return from Cambridge, on the evening of the 2d of February, being fatigued and exhausted with running after her horse, which had started from her, and becoming incapable of proceeding from the numbness of her hands and feet, sat down on the ground. At that time, but a small quantity of the snow had drifted near her, but it began to gather very rapidly; and when Chesterton bells rang at 8 o'clock, she was completely enclosed and hemmed in by it. To the best of her recollection, she slept very little during the first night, or indeed any of the succeeding nights or days, except Friday, the 8th. On the morning of the 3d, the first after her imprisonment, observing before her a circular hole in the snow,

about two feet in length, and half a foot in diameter, running obliquely upwards through the mass, and closed with a thin covering of ice or snow; she broke off a branch of a bush that was close to her, and with it trust her handkerchief through the hole as a signal of distress. In consequence of this, the external air being admitted, she felt herself very cold. On the second morning the hole was again closed up, and continued so till the third day, after which time, it remained open. She heard distinctly the ringing of the village bells, noises on the highway, and even the conversation of some persons who passed near her; but could not make herself heard. She easily distinguished day and night, and could even read an almanack she took from her pocket. The sensations of hunger ceased almost entirely after the first day. Thirst was throughout her predominant feeling, and this she had the plentiful means of allaying, by sucking the surrounding snow. She felt no gratification from the use of her snuff. On Friday the 8th, when a thaw took place, she felt uncommonly faint and languid. Her clothes were wet quite through by the melted snow; and the aperture became enlarged, and

tempted her in vain to try to disengage herself. On Sunday the 10th, a little after mid-day, she was discovered. A piece of biscuit and a small quantity of brandy were given her, from which she found herself greatly recruited; but she was so much exhausted, that, on being lifted out of the snow, she fainted. She was directed to be put into bed without delay, and to take some weak broth occasionally; but no strong liquors, and not to be brought near the fire. Next day she was affected with symptons of fever, her pulse was rising, her face was flushed, and her breathing short; occasioned probably by having taken too much food, and being incommoded by the croud of visiters. Her feet were also in a complete state of mortification, and her ancles cold and benumbed. Cloths wetted with brandy were applied to her feet, some remedies for fevers, and a little opium was given her; the mortification, however, proceeded, and, on the 17th of March, all her toes were removed. On the 17th of April, the date of the last report, the sores were diminishing daily in size; her appetite was become tolerably good, and her health was improving. Notwithstanding these favourable appearances,

we find her death announced in the public prints of September, 1799.

In the neighbourhood of those vast mountains, the Alps, the inhabitants are in great peril from the sudden falling of the snow. It often gathers in immense quantities on the high projecting rocks, and at length gives way, and rolls in great masses to the valley beneath, overwhelming houses, trees, or whatever else it meets in its course. The following awful and interesting occurrence of this nature is perfectly well proved to have taken place. A small cluster of houses, at a place called Bergemoletto, in Italy, was on the 19th of March, 1755, entirely overwhelmed by two vast bodies of snow that tumbled down from a neighbouring mountain. All the inhabitants were then within doors, except one Joseph Rochia and his son, a lad of fifteen, who were on the roof of their house clearing away the snow, which had fallen for three days incessantly. A priest going by to mass advised them to come down, having just before observed a body of the snow tumbling from the mountains towards them. The man descended with great haste, and fled with his son, he knew not whither; but scarce had he gone thirty or

forty steps, before his son, who followed him, fell down, on which, looking back, he saw his own and his neighbours houses, in which were twenty two persons in all, covered with a high mountain of snow. He lifted up his son, and reflecting that his wife, his sister, two children, and all his effects, were thus buried, he fainted away; but soon reviving, got safe to a friend's house at some distance. Five days after, Joseph being perfectly recovered, got upon the snow, with his son and two of his wife's brothers, to try if he could find the exact place where his house stood; but after many openings made in the snow, they could not discover it. The month of April proving hot, and the snow beginning to soften, he again used his utmost endeavours to recover his effects, and to bury, as he thought, the remains of his family. He made new openings, and threw in earth to melt the snow, which, on the 24th of April, was greatly diminished. He broke through ice six English feet thick with iron bars, thrust down a long pole, and touched the ground; but, evening coming on, he desisted. His wife's brother, who lived at a town at some distance, went to Bergemoletto, where Joseph was, and en-

couraged him to work upon the snow, where they made another opening, which led them to the house they searched for; but, finding no dead bodies in its ruins, they sought for the stable, which was about 240 English feet distant, which having found, they heard the cry of "Help, my dear brother!" being greatly surprised as well as encouraged by these words, they laboured with all diligence till they had made a large opening, through which the brother immediately went down, where the sister, with an agonizing and feeble voice, told him, "I have always trusted in God and you, that you would not forsake me." The other brother and the husband then went down, and found still alive the wife, about 45; the sister about 35; and a daughter, about 13 years of age. These they raised upon their shoulders to men above, who pulled them up as if from the grave, and carried them to a neighbouring house: they were unable to walk, and so wasted that they appeared like mere skeletons; they were immediately put to bed, and gruel of rye flower and a little butter was given to recover them. Some days after, the overseer came to see them, and found the wife still unable to rise from bed, or use

her feet from the intense cold she had endured and the uneasy posture she had been in. The sister, whose legs had been bathed with hot wine, could walk with some difficulty; and the daughter needed no further remedies. On the overseer asking the women, they told him, that, on the morning of the 19th of March, they were in the stable, with a boy of six years old and a girl of about thirteen: in the same stable were six goats, one of which having brought forth two dead kids the night before, they went to carry her a small vessel of rye flower gruel, there were also an ass and five or six fowls. They were sheltering themselves in a warm corner of the stable until the church bell should ring, intending to attend the service. The wife related, that wanting to get out of the stable to kindle a fire in the house for her husband, who was clearing away the snow from the top of it, she perceived a mass of snow breaking down towards the east, upon which she went back into the stables, shut the door, and told her sister of it. In less than three minutes they heard the roof break over their heads, and also part of the ceiling. The sister advised to get into the rack and manger, which they did. The

ass was tied to the manger, but got loose by kicking and struggling, and threw down the little vessel which they found, and afterwards used to hold the melted snow, which served them for drink; very fortunately the manger was under the main prop of the stable, and so resisted the weight of the snow; their first care was to know what they had to eat. The sister said she had fifteen chestnuts in her pocket: the children said they had breakfasted, and should want no more that day. They remembered there were thirty or forty cakes in a place near the stable, and endeavoured to get at them, but were not able for the snow; they called often for help, but were heard by none. The sister gave two chestnuts to the wife, and eat two herself, and they drank some snow water. The ass was restless, and the goats kept bleating for some days, after which they heard no more of them. Two of the goats, however, being left alive, and near the manger, they felt them, and found that one of them was big, and would soon kid, as they recollected, about the middle of April; the other gave milk, wherewith they preserved their lives. During all the time, they saw not one ray of light; yet for about twenty days

they had some notice of night and day from the crowing of the fowls, till they died.

The second day, being very hungry, they eat all the chestnuts, and drank what milk the goat yielded, being very near two pounds a day at first; but it soon decreased. The third day, they attempted in vain to get at the cakes; so resolved to take all possible care to feed the goats; for just above the manger was a hay-loft, whence, through a hole, the sister pulled down hay into the rack, and gave it to the goats as long as she could reach it, and then, when it was beyond her reach, the goats climbed up upon her shoulders and reached it themselves. On the sixth day the boy sickened, and six days after, desired his mother, who all this time had held him in her lap, to lay him at his length in the manger. She did so, and, taking him by the hand, felt it was very cold; she then put her hand to his mouth, and finding that cold likewise, she gave him a little milk; the boy then cried, "Oh, my father in the snow! oh, father, father, and then expired. In the mean while, the goat's milk diminished daily, and the fowls soon after dying, they could no longer distinguish night from day; but according to their reckoning, the time

was near when the other goat should kid which at length they knew was come, by its cries; the sister helped it, and they killed the kid, to save the milk for their own subsistence; whenever they called the goat, it would come and lick their faces and hands, and gave them every day two pounds of milk, on which account they still bear the poor creature a great affection. They said, that during this time, hunger gave them but little uneasiness, except for the first five or six days; that their greatest pain was from the extreme coldness of the melted snow water, which fell on them, from the stench of the dead ass, goats, fowls, &c. and from lice; but more than all from the very uneasy posture they were confined to, the manger in which they sat squatting against the wall, being no more than three feet four inches broad. The mother said she had never slept; but the sister, and daughter declared they had slept as usual.

To these accounts, we shall add one of the fall of a mountain, which destroyed an entire village in Switzerland, in the year 1806, still more extraordinary, as well as more melancholy, from the numbers that perished under the ruins.

In one of the central Cantons of Switzerland the valley of Art runs between high mountains on each side for about six miles; a small river flows in the middle, which was bounded by pasture grounds extending up the opposite sides of the two mountains till they met the firs, the only trees that grow at such high elevations. The village of Art is built at the entrance of the valley; a short distance to the south lay the populous and picturesque village of Goldau, and a little farther on, in a straight line, the small lake of Lowertz.

The mountain on the left, called the Rossberg, is composed of a crumbling kind of stone, which has often, when decayed by the rains, fallen in huge fragments into the valley, causing mischief more or less extensive; but the last and most terrible slip of the mountain took place on the 5th of September, 1806, at 5 o'clock in the evening.

A great quantity of snow had fallen in Switzerland during the preceding winter, and the months of July and August had been exceedingly rainy, added to which, it had rained incessantly and with great violence on the 1st and 2d September. On the morning of the 5th, many persons in

the neighbourhood had heard a rumbling noise under ground, and what seemed to be a cracking of the mountain; at length, at 5 o'clock, the whole of the upper bed of the Rossberg rushed into the valley, with a noise more dreadful than thunder. The breadth of the land that slipped was above 1000 feet, the thickness of the bed 100 feet, and the length above 3 miles. The destruction that followed was dreadful beyond what can be imagined; in five minutes, this delightful spot, laid out in rich pasture fields and covered with cattle, was changed into a desert. Three villages, of which Goldau was the principal, were crushed under immense fragments of rock, some of them as large as a house, and above one hundred feet in height. Not a trace was to be seen of the road. A huge rock had fallen exactly in the bed of the river, and stopped its course, till it found, at length, a new channel to flow in. The belfry of the chapel alone stood in the midst of the ruins, though every other house was hurled to the ground; and the inhabitants of the valley, who were but a short time before remarkable for their industry, their decent habits and comfortable condition, were, in a moment, either

crushed under the ruins of the mountain, or reduced to extreme poverty. Four hundred and thirty-three persons perished by this calamity, besides twenty-four strangers, who were either travelling through the country, or were temporary residents there. At the time of the accident sixty-four persons had saved themselves by a rapid flight, and fourteen were the next day drawn out alive from beneath the ruins; amongst these last, was one young girl who was preserved by the beam of the roof falling over her head in such a direction that it formed a kind of pent-house to protect her from danger. When she first heard the crash of the mountain as it gave way, her first idea was, that the end of the world was approaching, and she did not recover from the stupor into which the noise and fright had thrown her, till some hours after, when she heard the tolling of the chapel bell at Art calling the people to evening prayers.

Among the sufferers on this melancholy occasion, was a party of eight travellers, who had reached Art at 4 o'clock in the afternoon, with the intention of ascending the opposite mountain, from the top of which the view is remarkably fine; some

of them had walked on before the rest, who stopped behind to make inquiries about the road, these last, however, after a short delay, also set forward to follow their companions, whom they saw about two hundred paces before them, just entering the village of Goldau. At that instant, the mountain began to give way, but at so great a distance, that they stopped to observe the extraordinary sight, without feeling any apprehension either for themselves or their party; suddenly, however, a shower of stones passed over their heads, with such violence that they were obliged to fly in order to save their lives; looking back as they ran, they saw their friends disappear from sight, being buried under the ruins, and, though they afterwards returned to search for the bodies, every effort to discover their remains proved altogether unavailing.

The festival of Christmas occurs very seasonably to cheer this comfortless period. Great preparations are made for it in the country, and plenty of rustic dainties are provided for its celebration according to the rites of ancient hospitality. The old year steals away unlamented and scarcely perceived; and a new one begins with length-

ening days and brighter skies, inspiring fresh hopes and pleasing expectations.

This river may
change its course
and these rocks
may change into
plains, but my
heart can never
change in its love
for you. —

I have no
faith of your
faith and constan[cy]
why should you [ha-]
have any of mine