THE
FAERY
YEAR
THE FAERY YEAR
BY THE SAME AUTHOR

THE GLAMOUR OF THE EARTH
THE BIRDS IN OUR WOOD
Etc.
THE HAUNTED WALK. [Frontispiece.]
THE

FAERY YEAR

BY

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Tendebantque manus ripæ ulterioris amore.

I associate this book with my Mother.
IN substance my chronicle has appeared from week to week in the "Standard," and I thank the proprietor and the editor for their courtesy in allowing me to publish it in book-form. If these short stories of the year have any worth, it is that of spontaneity. I have written down only the things that I care for, and whilst they have been fresh in my thoughts, and lately seen and enjoyed. It is truly a faery procession that appeals to us when we review even a few of the things which make up the year of Nature—a wonderful charm of birds, butterflies, stars, clouds, woods, and waters. At random I recall a few now: first, at the acme of the year, days of great June with its clouds of endless forms and phantasies, wisp, stipple and fleece of cirrus and cirrostratus, snow mountains of cumulus; July with sorceries of silence and the scented breath of its eve, with its strange dance of ghost moths at dusk, when Capella is flashing intensely out of the afterglow and the gold taper of Mars is alight in the awful blue; August knee-deep in the copse grasses with yellow-hammer days; autumn with its golden-haired larches; winter with a wine-coloured withy wood by the estuary, and the
ghost-like earth-cloud, stratus, creeping over the darkening marsh or heath; and at the same seasons the whirling columns of winter-gnats and the glittering gossamer weighted with rainbow dewdrops. Then there is the faery year of our English birds: spiral evolution of linnets in the frosty skies, loop of the rooks going home to rest, a flock of starlings in autumn black-budding the ash tree a field away, swans angel white clipt out on the leaden lake, thrushes singing like mad in the grey stormy March dawn.

Year after year the beauty and wonder repeated, but year after year countless sights and sounds noticed for the first time in our lives; this is the experience of everybody who attends to Nature. It is this incessant press of new things which makes the study of Nature at times something of a despair; so much to see, such a little time to see it! Each thing is over so soon—τό ροδον ἀκμάζει βαιόν χρόνον—that we should hardly have the opportunity to study and enjoy it to the full even if hundreds of other things were not pressing for notice at the same time. At most, then, we can only enjoy a peep, a sip. No thorough exhaustive study of even a branch, a small branch of Nature, is really possible, the season of things being so fleeting and life itself so short and utterly inadequate to such a task. This is a drawback we may feel more and more each year.

Still, the little we can see and enjoy counts much in life; that little which is all gain. It is very valuable to recognize to our utmost capacity the
NOTE

beauty and wonder of Nature. This is far from being a matter of mere "sentiment"; it is of high practical importance, for the right enjoyment and study of these things must make men and women happier, completer in understanding and taste and eye, and therefore better members of the State.

G. A. B. DEWAR.
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"The Haunted Walk," "In the Barrow Wood," and "Raven Pines," are from photographs by Brown & Gradidge, of Andover; and the rest of the illustrations are from the work of Ernest Hart, the famous Christchurch naturalist.
“The earth we pace
Again appears to be
An unsubstantial faery place
That is fit home for thee.”
THE FAERY YEAR

JANUARY

The Venus Eve

No one who cares for sky pageantry should fail to watch Venus on serene evenings at mid-winter. Cities are not good to see the sky from, because of the smoky air and high buildings which cramp the view. But even from a great city Venus and Jupiter, soon after sundown, may sometimes be seen in full splendour. Over traffic, glare and confusion I saw Venus burning in the amber; at a greater height came Jupiter, travelling in the awful blue, which was unflecked by the smallest fragment of cloud and unstained by the afterglow. By-and-by, Venus, low in the west, might easily have been mistaken for one of the lights of the city. This pageant of planets, once seen from a city in mid-winter, is unforgettable; but it is still better to watch Venus and Jupiter swinging west, when we are on the marsh at dusk, or in the secret wood.

Venus first appears on this faery scene as a mere point of white light, not larger than a star of second magnitude, but beautifully steady. This begins her rule; it is scarcely dusk; the sun, like a
porthole in the sky, with disk sharp as a razor edge, has just dipped under the horizon. But as the day wanes, Venus waxes, so that at dark she is a very moon in miniature, only fierier in yellow light than any moon. One time we see Venus blazing down under the swarthy hill, whilst the other masterful planet of the winter eve has only begun to climb the sky; but later on Jupiter and Venus are perfectly set for comparison.

Jupiter shines so large and lustrous that, with Venus away, he overlords all. It is very different at that earlier period that comes between the light and night, which Jupiter only shares with Venus. Thus on evenings differing much in atmosphere and sky, both planets riding high at the same time, Venus is seen at a glance to be the more brilliant. One evening she burns through a clear atmosphere; another, she glows through veils of cirrostratus cloud; and at such a time, when now and then the veil grows thin, the two orbs are seen for a few seconds, though not in full glory. But when it thickens again, we can see only a gauzy glow. Venus and Jupiter alone have the power to set aglow the cloud that shrouds them. Sirius and bickering Vega, which is so fine in the eves of midwinter, can light up only a fragment of obscuring cloud, and most other stars have no effect which can be seen by the naked eye. It is a rough way of estimating the lighting powers of stars and planets, which by the astronomer have been calculated with such exquisite accuracy.
THE SPORTIVE BIRD

Aërial Skaters

Much of the aërial play of birds has, I think, nothing to do with courtship or marriage. After a course of those delightful pages in "The Descent of Man" which treat of birds, the idea holds one that every figure a bird cuts in the air, ornamental twist or somersault, is to please and attract the hen. But does the hen really care to watch this cutting of capers? I am sure she does not care at this time of the year. Yet, in December and January, many birds exult in elegant exercise. A radiant winter morning seems to upraise the life of the bird as it does the life of man. The black-headed gull has been performing with rare grace over his sea and river haunts. He, or she—for no doubt both sexes take part in the exercise—reminds me of some accomplished skater. A gull will take two or three long curves; these are executed slowly; a single motion of the wings is enough for one curve; then, suddenly, the bird cuts a small, swift figure in the air, and, a fraction of an instant later, resumes its stately, slow curves. The wide curves and sweeps answer to the outside edge strokes of the powerful skater; the swift, small figures to the loops or deft, quick turns from the outside to the inside edge, and so forth.

Selborne and White

Reading an appeal of the Vicar of Selborne for funds to repair the church, we recall with joy that
naïve description by Gilbert White of how the biggest of the three great bells, on its arrival at Selborne, was fixed bottom upwards and, by order of the giver, filled with punch for the villagers. The peal of bells ought to be religiously preserved; this and the great yew—which soon will be dusting the air once again with its gold shower—and Timothy's shell and the summer-house and the sundial are of enduring fame. Timothy's shell, unhappily, has been allowed to leave Selborne; and long ago I saw the summer-house falling to ruin. White's sundial and the very oak, round which, perhaps, he saw the fern-owls hawking, were still in the grounds a few years ago. I hope the dial will never be taken from Selborne.

Physically, Selborne can hardly have changed since White's day; it grows the same crops; the hanger is clothed now, as then, by the beech tree—the most lovely of all forest trees to White's view, whether "we consider its smooth rind or bark, its glossy foliage, or graceful pendulous boughs." Nore Hill, where the chalk crops up, is just as it was of old. There is a rapture in chalk which, perhaps, you should be born—at least bred—in to know. The swell and smoothness of the vast chalk downs, the sameness, the restful sense of immense age, infinitely slow making and complete finish about them, the elastic spring of the turf—these are a great appeal. "For my part, I think there is something peculiarly sweet and amusing in the shapely figured aspect of chalk hills in preference to those
SELBORNE AND WHITE

of stone, which are rugged, broken, abrupt, and shapeless."

It is rather different with the village of Selborne, I fear. Some of the newer cottages are not good to look at. There are neighbouring villages in this very English bit of English scenery which compare well with Selborne. Empshott, near by, is a Birket Foster village, if there is one in England, and there are others remoter from the highways than Empshott, where beauty goes on mellowing and mellowing; spots in which thought of stir and strife and progress seems absurd. Not that it is all George Morland cottage and Birket Foster lane around Selborne. The country has its wild, rude places, such as Woolmer Forest, once the home of crane and wild boar, in whose bogs grow the yellow asphodel and the round-leaved sundew. On a winter night the road from Greatham and Liphook seems to lie in a stern and solemn land.

Selborne, through the variety of its soil, or subsoil, is a good district for the wildflower hunter, and many species have been added to Gilbert White's own list. About thirty years ago a curious and rare plant was added to the Selborne list, the violet helleborine. This plant was overlooked by White, or it established itself close to the hanger after his time. I found several plants of it at Selborne in July, 1900. It is so remarkable that one can hardly imagine White overlooking it. Some of these fastidious plants occupy new homes in the most unaccountable way. But it is very hard to induce
them to acclimatize themselves. I have tried to persuade that odd, fleshly thing, the toothwort, to settle under a hazel bush in my garden, but without success, though the hazel is one of its favourite hosts.

The Marsh in January

The marsh is a stark place in these days. Set in the angle formed by the union of the two trout streams, it is fruitful of life in many forms during the summer. But, searched through and through by a January east wind, it is the most inhospitable place. Snipe, full and half alike, leave it during the frost, though rough and rainy weather brings them thither. Its peewit population, inspired by the very spirit of wild song and dance in spring and early summer, has left to a bird by autumn. That wayward, far-flighted, green sandpiper—"martin-snipe" of the river villagers—has not come yet. The field-fares will gather in little parties on the oaks that lie about the edge of the marsh, but there is no food to tempt them to the dry or wet parts of the marsh. A covey or two of partridges, and here and there a reed-bunting, its plaintive shrill cry going well with the east wind, seem to be the only living creatures on the marsh.

The terrible tangle of dried-up, beaten-down sedges and coarse grasses and bents, which cover all but its high-lying, turfy patches, baffles description—a tangle of a thousand shades for which there are no names. The sugar-plums of speech
are here of no use—those roses and primroses and opals and all the tints and washes, which, for want of something stronger and better, we are driven to apply to dawn and sundown. We have no colour names for the naked oaks and underwoods till the blue of the afternoon begins to creep on them—how much less a colour name for this scene of wreck!

With the tangle of ruined plants so dense, the wonder is how the new life can thrust up through it to re-green the whole place in a few weeks from the present starved time. There is so little sign of this material rotting. It is dry and harsh, whistling and scraping together as the wind drives through it, and looking as if it could never crumble into mould. And what nourishment for the green life to be born presently can lie hid in such wilted matter? It is only when one looks very close that the sure marks are to be traced of the decay which is adding its thin layer of new soil to the marsh. The reed beds hang their flossy heads long after other plants by the water have cast abroad seeds, but the long, loose leaves of the reed are bleached and spotted sooner than the sedges and rough grasses in the midst of the marsh. Now they are bustard-brown, lined and speckled very much as the bustard's feathers, each line and speck a tiny fungus growth. It is the same agency, in more obscure form, which reduces to black mould the whole tangle of this forlorn spot. Here is the primordial farming of Nature.
But the marsh can grow far less crude and harsh in look as the winter night begins to touch it. It then wears colours of a grand simplicity. Sometimes in January, during sharp frost, when the sun has gone under the low hills beyond the river, the scene will glow with warm colour. At one spot, just above the marsh, where the river runs darkly and highly burnished, the stars are reflected and magnified in it; and here, at the right time and spot, one may see the seven stars of the Plough, snow-white and sparkling in the water. But at the point where it slides under the road bridge, the stream increases its pace again, and its surface is broken rather than burnished. It enters upon the marsh, to flow away into the velvet of night.

The rich night black of its banks in the foreground; the less determinable shade of dark farther away on the flat expanse; beyond, the grey hill line; above this, the great curtain of purple cloud; finally, the blue vault, with Aquila, the eagle, still aloft;—there is nothing forbidding in this scene at the marsh. So one can see it on many winter evenings; and so I watched it once early in January, when a lonely star of the Southern Fish was quivering on the horizon to the south, one of the shy jewels of our English horizon.

Hot-blooded Trout

The description "cold-bloodied" hardly seems the happy one to use of fish in the spawning
HOT-BLOODED TROUT

months. Some people who dislike shooting and hunting, through sympathy with the shot and hunted thing, will tolerate angling. This is the "blameless" sport of Wordsworth. But is it really safe to conclude that fish do not suffer, that they are "cold-blooded"? Perhaps there are safer and wiser arguments than this in favour of angling. The brilliancy and the high spirit of many fish in the pairing and spawning season point to heat rather than chill. The splendour which the sticklebacks take on at this time, and their pugnacity, are not singular among fish. The trout, now spawning, are animated with an intense ardour and energy. It often happens that a suitable spot in the river bed is used as spawning ground by more than one pair of fish, and, where the space is limited, bitter rivalry exists among the male, if not the female, trout. They will often charge and butt each other with force that may inflict pain, if not actual injury. The blow seems to be struck with the head. It is no light cuff of frolic, but one of savage intent; and the haste with which the struck trout darts off shows the earnestness of it. The attacker is always successful. He never seems to meet with a spirited defence. To attack is to drive off. But I believe the attacker is nearly always the larger fish.

In spite of these furious fights, three or four pairs of trout will prepare the same bed, four or five square yards in extent. To-day the rivers are in order for spawn. The current is flowing at the right strength; when it is too impetuous in the
chalk streams, the spawning season may prove bad. Perhaps the trout cannot work in the gravel then with good effect; or the eggs, when laid, may be washed away by the force of the water. To prepare the spawning bed is no light task. A pair of trout will work for weeks on a gravel bed, scooping out a barrowful of gravel. Half a dozen pairs of trout working on the same bed will throw back a cartload of gravel, which is banked up just like the earth at the entrance of a newly-made rabbit burrow. When they have thrown out enough gravel, penetrating the bed of the river about six inches, the trout spawn, and then work down over the eggs the gravel that lies just above the top end of the bed. In this process, as, perhaps, to a less extent in scooping out the hollow, the fish are helped by the action of the current. Even so, the work is far from light. The trout rarely or never makes its spawning beds in sand or fine gravel. It works out the hollows among the coarse, heavy gravel, and it is surprising what large stones are loosened from the river bed and pushed aside or backwards. The trout has a very hard snout, as shown by the way in which it butts a rival without suffering discomfort therefrom; but I do not think the snout is much used for digging the spawning beds. This work seems to be done by the body, which is plunged and rolled in the gravel. Not all the larger flints, which the trout has to move before the spawning bed is ready, are round and smooth as pebbles on the beach. Many have
HOT-BLOODED TROUT

dangerous jagged edges. Thus, from time to time the fish injures itself fatally in the work of scooping out the nest in the gravel. A spawning trout, picked up dead on the stream, had a long cruel cut almost from head to tail, caused by a sharp stone. Possibly the trout, in digging, had run itself on this edge; or, attacked by a rival, had darted from the bed, and, doing so, torn itself along the stone. Often, after spawning, the trout are seen on the shallows with lesser injuries about their sides and bellies.

The smaller fish soon recover flesh, and beauty of shape and colour, after spawning. One might take plenty of troutlets from the Barle or Exe on the moors in good condition before the end of the month. The larger trout of the chalk streams take longer to recover from the exhaustion of spawning. Many have not filled out by May. Yet winter does not reduce the stock of food so much as might be supposed. All the winter water flies are hatching into their winged state, and sailing down-stream. The winter gnat scarcely comes out for its strange dance in column save on mild or brilliant days; but some of the water flies—ephemeridae—will hatch and appear at the surface of the stream in the stinging wind and snow-storm. What can be imagined, except it be this winter gnat, more fragile than the iron blue fly or the olive dun fly of the trout stream? We can scarcely take it lightly between the fingers and not crush the life out. Yet it is proof against bitter cold.
The Ploughman's Queue

The outburst of some farmers against grain- and seed-eating birds is not unnatural. During frost or snow, a very sparrow-endurer, if he visit a few stacks of unthreshed grain—oats, barley, or wheat—in the fields or about the barns, may feel a little sympathy with the owner. At his approach a large party of sparrows, mingled with finches and a few pairs of yellow-hammers, flies off unwillingly. The birds are dropping back, however, almost as he turns away. Clinging to the sides of the stacks, they feed on the grain, and often will pull out and carry the straws to a spot where they can easily extract the grain. A favourable spot is a quiet road or lane close by the stacks. Sparrows, yellow-hammers, and finches will fly with straws to a hard road, where they can pick out the grain more easily than in the field, and are less likely to lose it. The latter advantage they may not be aware of. They are quite as conscious of the former as is the song-thrush that flies with its snail to the road or stone on which it can smash the shell.

Then there are the long trains of rooks, which, as a farmer angrily declares, half blacken a field. But in frosty weather should not a farmer soften towards rook and starling? The grass lands being hard-frozen, they follow the plough, with a few skylarks and often a pair or two of pied wagtails. No robin ever better understood the good to him in the garden spade than they the good in the plough.
THE PLOUGHMAN'S QUEUE

They follow it, furrow after furrow, hours at a stretch. When the ploughman has ended his furrow, and driven his horses to the other line, the birds will wait at hand till he has turned up eight or ten yards of soil, then fly down behind him and feed eagerly on the food which has been brought to the surface. He advances another ten yards—they are up and after him again; and so on with curious regularity; the starlings always being the boldest, approaching nearer to the plough than the rooks do.

Watching the procession behind the plough-share, it has struck me the birds take a part in the grand task of preparing the soil for the crop, almost comparable with that of harrow or roller. If some machine or chemical agency could be devised for ridding the soil of hurtful grubs, the farmer might do well without birds. But, even then, might not the cost of the method be greater than the loss which he suffers through the birds eating his grain?

Water Vole and Stoat

Craft, cruelty, concentration—these, with a wonderful suppleness, are the characteristics of the stoat on the track of its victim. No English animal or prey has the stoat’s reputation for devilry; perhaps the weasel would have it were he as showy. The hawk furnishes a fine image when we wish to describe some human act of prey; but the hawk, in the act of striking the bird or mouse, does not convey quite that impression of devilry which the
stoat does in its hunting. The slyness and the blood-thirst of the stoat are absent from one's idea of the hawk. Watch the stoat working the honey-combed banks of a stream in pursuit of voles, and you will notice that it is quite at home in the water. It swims with ease. Whether it often successfully follows the vole into the water I doubt. Yet in the burning pursuit of prey the stoat will certainly venture under water. The water-keeper has found out that the small jack of his trout stream are in the habit of going up a ditch into some pipes laid underground for a few yards here and there. So he sets in these spots a wire-meshed trap, somewhat similar in design to an eel-trap. The other day, examining one of these traps, he found a drowned water vole and stoat in it. The vole had fled up the drain into the trap, pursued by the stoat, and both were drowned. It was cruel fortune for the vole to lose its life thus. Had it plunged into one of the neighbouring drains, in which there was no trap, it might have escaped, and even drowned its terrible pursuer into the bargain; though, if Blomfield's information were correct, the stoat will sometimes take eels under water—a statement I have never been able quite to accept. Anyhow, this water vole died rare game. It reminds one of the tremendous scene of the dogging of Bradley Headstone by Rogue Riderhood. There is one way out of the ravening pursuit. Headstone takes Riderhood down with him between the lock gates, a grave from which there is no arising, and they perish together.
Helleborine and Orchids

I mentioned the violet helleborine as a plant to be found to-day at Selborne. A flower-lover has since written to me: "I know E. latifolia, E. media, E. atrorubens, E. palustris, but have never heard of E. violacea. Which helleborine is it that is referred to? All, except latifolia, are rather scarce plants." I cannot tell whether this violet helleborine is regarded by most botanists as a distinct species, or a variety of the broad-leafed helleborine; but so good a botanist as Mr. Townsend admits it into his "Flora of Hampshire" as a species. In the new edition of his delightful work—the flowers' address book I call it, labour of over half a century of love—he writes of it as a very rare plant, and gives 1873 as the first record.

A fantastic, beautiful plant of this family is the marsh helleborine. Some specimens were brought to us in a choice bouquet of riverside wild flowers, and each blossom held a large glistening bead of nectar, fee or due of moth "marriage priests" of the helleborine; it added not a little to the curious beauty of the flower. No other wild English orchid, that I have seen holds so much liquid as did these marsh helleborines, though several are stored with sweetmeats. On a serene summer evening the aroma of a large patch of the fragrant orchid, conopsea, is delicious. There is a water meadow near Romsey where I have found it in abundance close to the river, and it sometimes perfumes the
air. This fragrant orchid blossoms a month later in the water meadow and marsh than in the wind-swept downs; why, I cannot guess. The most beautiful of the commoner wild orchids, perhaps not excepting the bee orchid, with its pretty lip of maroon purple, is the pyramidal. The English orchids are a trifle stiff in manner of growth, the flowers arranged more or less formally at the end of a straight stem; but this only serves to increase their distinction among wild flowers.

How can we account for the disappearance of several species of wild orchids in spots where they are not plucked or uprooted by human hands? Several of the strange mimetic orchids of England are almost extinct, such as the lizard orchid, while the spider orchids are now very rare. Possibly they have suffered through the rarity that makes them a prize coveted by the flower collector. But the pyramidal and the fly orchids will disappear from downs and grassy spots though no one gathers them. Do they go because the insects which cross-fertilize them have become scarce in the district?

On the other hand, the bee or one of the butterfly orchids will suddenly appear and thrive in a new spot. The smaller butterfly orchid has sown itself in a grassy strip of ground between the clearing and wood at my home, where the birch and the bracken are thick—the very spot for the tree pipit, which nests there in May. It has abounded here of late seasons, but, if its one seed out of each thousand seeds were prolific, the butterfly orchid soon would
HELLEBORINE AND ORCHIDS

sheet the ground with scented white flowers in June.

This is Nature's method with the wild orchids and other things—instead of producing and bringing to fruition a few seeds, she produces them by the myriad, and lets them take their chance in a world of pressing competition. One could conceive of a machinery of production by which the great proportion of the seeds formed would be brought to perfection, and by varied and sure agency sown in the right spot; an arrangement of clock-work precision, Nature concentrating on the work of perfecting—comparatively—a few seeds, and bringing these to fruition; producing—comparatively—a few grains of pollen, but taking care that the majority of these grains do their work. But her actual method, how different! To make sure of a few plants, she produces an infinite number of grains of pollen, and through these of seeds. The great majority of pollen grains, and of seeds, comes to nothing. A great waste? No—for each seed, each grain, is used up to effect, "will bloom to profit otherwhere." And yet it is clear that this lavish method is sometimes, from a human point of view, a failure; in spite of all their seeds, the wild orchids die out in places.
No wonder the bees come out in numbers for a few hours in early February. At midday there is an illusion of spring. Not till sundown does winter set in. After one of these radiant days, between rimy nights, the sun sometimes retires behind a vast curtain of sombre grey on the west. But the curtain is not so opaque as to forbid glimpses now and then of the photosphere, which burns through the flimsier parts, nearly blood-red. A few hours earlier, it burned through one of those cold white mists, which several times in the winter will suddenly sweep over hill and lowland, like visitors from the sea, and as suddenly depart, leaving the day brilliant as ever; but then the sun burned white, no trace of colour about it, like a full moon in daytime.

This is one of the most beautiful sky effects of a winter day; but it is scarcely equal to a night scene in February, when about nine o’clock through the dark boughs of a garden yew one watches Venus setting. She surely sparkles then as at no other time; now she is in sight, now hid, now in sight again, and she throws out two or three little spikes
ILLUSIONS OF SPRING

of light, instead of looking, as most planets and stars, just a round speck of blue or yellow light.

It is not only the brilliant shine in the morning and early afternoon that gives this spring illusion. On the southern sides of coppices and umber woods open to the sun, hazels already show a few catkins lightly dusted with the sulphur-coloured pollen, if not yet the bright red flowers of the other sex. The hedge banks, six feet high in some places in the South of England, are generally the first spots, even among the hills, to answer to a zephyr touch of spring. Here the dog mercury is sure to blossom earlier than elsewhere; I have found it flowering during bright, bitter weather in the second week of February: here, too, the primroses begin in March. But primroses are winter flowers as well. The best show of them I remember seeing in winter was on December 17, 1900; thousands of flowers, rather small, but as yellow and sweet-smelling as those of spring, were fully out among the young hazel shoots, six or seven hundred feet above the sea.

The Titmice

Not only birds, but bees and plants, help to make this look and feel of spring. Take titmice: most of these have paired or are pairing—blue, marsh, cole, and great titmice, though none begins to build so early as the long-tailed titmouse. The great titmouse has not yet begun his marriage lay which
rings through the woods in March and April; and scarcely his whetstone note; he is content with one or two short finchy sounds. The cole titmouse also has a whetstone note, if not quite such a notable one, which he has been practising. This note is never given deliberately whilst the bird is perched. He does not stop to call. He flings it out as he flitters from twig to twig. The seeds and nuts on which the cole titmouse fed freely in autumn are scarce now. The beech mast has all gone, or is covered with dead leaves. Therefore the titmouse is on insect diet. His food has to be searched for among the moss and lichen, and in the fissures of the bark of trees. His midget movements on, round, under the branches, in curious search for tiny grubs, are exquisite in skill and finish. Various birds which seek their grubs in such spots have the power to hover under a branch for a few seconds to seize a mite of food, otherwise out of reach. The tree creeper and the nuthatch need not hover, as they can walk round a branch, though I once saw the nuthatch hover among the Netley Abbey ruined walls. But the golden-crested wren, the lesser whitethroat, the redbreast, the wood warbler, and two or three of the titmice, such as the cole titmouse, hover rather than hang downward when the grub is on the under side of a thick branch. Even a missel thrush, in a grotesque way, will sometimes hang on the wing under a big branch to seize some morsel of food.
HONEY-SEEKING

The Bees' Day

The bees' short day is over now long before the birds'. They begin to come from the hive at about eleven in the morning, and by three are all back—up in the wondrous cluster amid the golden combs. They may find a little honey in the winter jessamine, but the Portugal laurels are the chief allurement in shrubbery and garden, and the honey even here can hardly be worth seeking. One theory about the coming forth of the hive bees on a bright winter day is that they have the desire or will for exercise; that they take their short flights for the joy of the flying and of the delicious sun. But is it not likelier that their supreme purpose is honey-seeking? And do they remember, when they issue from the hive in January or February, some of their sources of supply of last autumn? I notice some of my bees, after the usual sweeping circle or two over the hive, fly off towards a farm garden a mile away; others make towards the village; some roam no farther than the Portugal laurel near their hive. Some that dare the January or February day may never return. If a heavy cloud come over the sun, or a white mist suddenly sweep over the land, the bee, a mile from home, however she hasten back, is in danger to perish. Perhaps she falls in the grass under the very hive, and is chilled to death within a foot or so of the cluster within.

But death comes not always swift and merciful when the bee is stricken by the cold. I noticed
what I took for a dead bee lying on the alighting board. Several hours later I examined this bee, and found that in the warmth of my hand she began to revive. This explains the old superstition of the English bee-master that dead bees could be brought to life by warmth. I have the fourth edition (1720) of a scarce book called “The True Amazons: or, The Monarchy of Bees, being a New Discovery and Improvement of those Wonderful Creatures.” It is by Joseph Warder, of Croydon. Warder was a physician, yet he believed in dead bees brought to life. In “How to raise Dead Bees to Life” he declares that hundreds of times he has done this. He prefers the gradual warmth of the hand to fiercer heat, and you are to “take care you bruise them not, lest they sting you.” The bees, returning to their hive after a fruitless journey in January, will, he says, drop in the grass to rest themselves before entering; or they will settle on the wood of the hive, palpitating, wearied; for they are quite out of training for flight at this time of year. It is then the cold and wet overcome them. Warder’s practice was to pick up the dead bees beneath and about the hive and hold them in his hand, twenty or thirty at a time. In less than a quarter of an hour they were recalled to life and ready to fly to the hive! “By this means I have saved the lives, or, rather, raised from the dead, many thousands of Bees.” But he had other methods when the dead bees within the hive were too numerous to hold in the hand: “I have taken
THE BEES' DAY

four or five Dutch thin Boxes, and with a Nail (or Bodkin) making Holes in the Covers, to give them air, have gone and fill'd these Boxes with dead Bees, and put them in my Breeches pockets (that of the Coat or Waistcoat is not warm enough), and so let them remain Half an Hour or more; and then, opening the Boxes in the Garden, they have all gone home as before." Once, he tells us, he restored to life a whole hive of dead bees by putting them on plates in the bright sunshine. When they were alive again he fed them on honey, and they recovered strength. These bees had perished from hunger, not cold.

The old bee books are delightful. The best I have read is "The Female Monarchy," by the Rev. Charles Butler, of Basingstoke. This little volume is now extremely rare, and I have never been lucky enough to find a cheap copy of it in an old book-shop. Butler was earlier than Warder, who dedicated with the usual flowers of speech to Queen Anne. He is the more charming writer of the two. I have pictured him moving benign among his bees, coaxing them from their wrath, with never a hasty or nervous movement. Hence his book has the very atmosphere of the bee garden more than any I know of save Maeterlinck's. Maeterlinck does not refer to Butler in some remarks he makes on the English writers on bees. "The Female Monarchy," indeed, is little known even by readers of bee books.

Warder, though he believes dead bees can be
raised to life, is severe on the errors of other authorities: for instance, on Rousden, a rival. Rousden perhaps paid too much heed to Virgil, who said that the bees fetched their young from the flowers, and who wrote of the king bee instead of the queen. Anyhow, Rousden broached the theory that there was a king bee as well as a queen. Warder complains of the "antiquated impertinences" and the "unexperienc'd whimseys" of such erroneous authors. Bee literature bred a good deal of heat in later times, when Huish attacked Huber with the truculence of Charles Waterton himself.

Ringdove Flights

To watch, week by week, winter relax its hold on the earth is one of the elemental pleasures in life. Whilst the sense to watch and the health to enjoy remain, this pleasure does not lessen. The stealing years may add to it, not take away. The many little signs and sights with which we concern ourselves in the field or wood, that make up, as a whole, the delicious ache for spring, cannot be caught and kept in the cells of language. The chaffinch is growing rosier to-day—to-morrow an indistinct something of yellow and red may be noticed about the tips of the yew-tree twigs. We cannot express in terms of pleasure what we feel about these familiar things—there is no adequate
RINGDOVE FLIGHTS

language for this delight. We are all Peter Bells when it comes to stating in precise words or printed letters our feelings about such things—the primrose is then to us a yellow primrose and no more.

If there were illusions of spring during the days of sunshine between the sharp nights of January, how much more so on dark February days, with a soft wind instead of a whip, and wild processions of cirrostratus cloud that set skylarks singing. Ringdoves which on and off have cooed through the winter are not yet in full voice; sometimes the coo will come through the trees so muffled as to remind one of the hoarse note of the stockdove. At its mellow best the ringdove’s note is of the highest order of merit. The ringdove’s spire, most graceful of love flights, is familiar to most watchers of bird life—the dove rises almost straight above the tree on which he has been cooing, to a considerable height—perhaps forty or fifty yards from the ground—where he hovers for a few seconds and then drops to his perch; it is not so frequent as the fling of the lapwing, but far from rare. There is, however, a variation of this exercise which has been much less noticed. A ringdove which has been cooing at the edge of a wood or in a park will leave his tree and take a hesitating, slow flight around in the open, twenty yards or so from the ground, giving during each flight a smart clap or two of his wings. The sound is like that of a ring or stock dove startled off its perch at day or night; but here it has nothing to do with haste and alarm; it is a love or courting
THE FAERY YEAR

flight of the dove, quite inferior in grace to the spire and hover, but a sign, I think, of the same emotion.

A Cress Farmer

The cress farm lies safely apart from hamlet or outlying cottage among the meads and coppices of a little hilly land of elms. Its cultivator, a year or two ago, was a labourer at a fixed wage. He saved a few pounds, and, the cress-beds being without a tenant, he persuaded the farmer on whose land they lie to give him a lease. In all, the beds cover an acre, and the rent is £12 a year. His season has just begun, and during the next few weeks the cresses—my friend calls them the "creases"—ought to bring in a sum to tide over unprofitable months later in the year. The dark cress, which in May will be succeeded by the bright green, fetches now only about four shillings and sixpence a flat or half-hundredweight. Yet it is crisp, and appetizing; and such cress, retailed by dealers in the towns, will fetch 1½d. a single small bunch. To make a living out of his beds, he must manage them himself, aided only by his boy, and there is work—often far more than he can do—on almost every day of the year. The banks, honeycombed by the water vole—perhaps even that pigmy creature, the water shrew, adds its mite of mischief—and crumbled by the frosts, have to be repaired, or the little runnels at the sides of the beds will be choked up. There
A CRESS FARMER

is thinning to be done; then the gathering from February through the season, and the cleaning and bunching-up of the cress for local retail business.

Some springs may dry up in late summer, and the cress perish, so that fresh planting will be necessary when the water rises again; at another time the water flows too strong, and damages the beds almost as badly as when it dries up. There is the hurt too, done by the frost, which may nip and turn yellow whole beds of cress, especially where the water deepens. Finally, a constant anxiety about price, demand, and supply. Black cress at this time of year has fetched as much as eleven shillings a flat. With a few weeks' profit on such a price the farmer can afford to gather and sell his green cress at 1s. 6d. or even 1s. a flat, and yet make a living, taking the year as a whole. But if he does not win his profit now, when cress is something of a luxury and should fetch a good price, what chance has he to make up later, when it is cheap and plentiful everywhere?

One thing tells against this honest, hard-striving man, which, rightly understood by his customers, would be in his favour. The springs bring to the surface much mineral powder, which darkens the roots of the cress and cannot be wholly removed by washing. The cress may be more nourishing through these minerals, but the appearance is disliked by the dealer, who wants white clean-looking stems on the dark cress as on the green.
Water Shrews

The "pig-mouse" of the cress farmer is the water shrew, a natty little thing of liveliest habit and conspicuous dress. Its upper coat is velvety as a mole's, and quite black. The under parts are white, like those of the hare, but purer. Here is an animal preyed on by owls, as well as weasels and other creatures of ravin, which is not in the least protected by its colour resembling its environment; indeed, like the blackbird, it is in contrast with its surroundings. True, in these particular cress beds the black of the water shrew's coat may not be out of harmony with the dark peaty banks, but the water shrew is the same colour in many ditches, ponds, and streams where the banks are not black. It is very nimble, easily and swiftly exchanging, when danger threatens, earth for water or water for earth. On this cress farm is a little community of shrews by an osier bed. They feed largely on the common freshwater shrimp, and no doubt on the larvē of small water-flies and the caddis. The little creature swims across the narrow channel on either side of the beds, and pushes its snout among the cresses, quickly discovering and eating a large number of shrimps. Surprised, it plunges from the cresses into the channel, dives instantly, and, swimming under water, quickly reaches one of its tunnels in the bank.

In flight under water the shrew very closely
WATER SHREWS

resembles, in miniature, the water vole. Both creatures have a greyish look when they are swiftly moving under water. I was often puzzled by this appearance of the vole until I noticed what Bell, in his "British Quadrupeds," wrote of the shrew's appearance under water, and what is true of one no doubt is true of the other. Its black velvety coat, he wrote, is "beautifully silvered with the innumerable bubbles of air that cover it when submerged." Bell noticed that when this shrew rose to the surface after a dive its fur seemed quite dry, like the plumage of duck or grebe.

The water shrew is not hard to approach and watch in a spot like this, as its sense neither of sight nor of sound is acute—at least, it is not long-sighted. In spring and summer it is full of frolic. Dovaston, who first named the water shrew as an English animal, long ago gave a nice description of its ordinary movements. "It dived and swam with great agility and freedom, repeatedly gliding from the bank under water, and disappearing under the mass of the leaves at the bottom. It very shortly returned and entered the bank, occasionally putting its long, sharp nose out of the water, and paddling close to the edge." The long tail of the water shrew was likened by Bell to a rudder. The water vole has a comparatively short tail, though one might suppose it needed a good rudder as much as the shrew; it takes longer trips in the water, and for safety has to be very deft in steering and turning. If Dovaston was the first to write of the
water shrew in England, he was followed by an acute observer and writer in Knapp, who pictured the water shrews in their quick changes from frolic to food. "They swim admirably, frolicking over the floating leaves of the pond-weed and up the foliage of the flags, which, bending with their weight, will at times souse them in the pool, and away they scramble to another, searching apparently for the insects that frequent such places, and feeding on drowned moths and similar insects. They run along the margin of water, rooting amid the leaves and mud with their long noses for food, like little ducks, with great earnestness and perseverance."

Ploughman and Shepherd

A liberal countryside education might include some knowledge of the language of the plough, the wain, the sheep-fold. Each seems to have a vocabulary, almost an accent, of its own. There is no speaking these languages with ease, save you are bred to the calling of ploughman, carter, or shepherd. They are acquired unconsciously, and handed down from hamlet generation to generation. Take the accomplished ploughman: when his horses are not thoroughly broken to the work, or the soil is obstinate through frost, he may be heard hour after hour speaking a language foreign to those whose business is not with the earth. It is surprising how many different words the dictionary of
the plough holds; some of these may have dialect variations in different districts. The best way to understand these sounds is to watch the effect of each one on the horses; or to watch the actions of the horses which cause the ploughman to speak the word. Then we may find that the sounds which we took to be orders to the horse or horses to stop are orders to go on, or the converse.

Ploughing in mild February weather is not a severe task, but in January the men are often at work on a surface crusted hard. Then, with the horses, or one of them, not perfectly trained, the ploughman is jerked and jolted violently about the furrow, and will keep up a running comment or protest about his team's behaviour. Thus the most enduring ploughman may seem testy. What sounds like an unreasonable grumble at struggling, patient beasts may set one against him. But this is not necessarily a sign of impatience in the ploughman; and it may show him to be thorough and painstaking. Even with the ground in good mood for the plough, there is, to the trained eye, much difference between the work of the careful ploughman and the careless. It is much more marked in fields that have been ploughed in unfavourable conditions.

The shepherd's language is chiefly for his dog. But, besides the words he employs to get his sheep driven where he will, he has a small vocabulary of terms strange to many ears. For instance, what does the "dead-fold" of the shepherd of
the Hampshire Downs mean? It sounds ominous, at this, the lambing season, yet means nothing worse than the fold of wattled hurdles, which is not moved about the field like the other folds. The dead-fold has been set in a dip of the downs close to the homestead, and by a rough, lonely road that leads from quiet village to even quieter. Not a particularly sheltered field this, for the hedges are cut low, and the north-east winds drive through them, sweeping down over the slopes, but as convenient a place as could be found hereabouts; for it lies on a bit of rough sainfoin which is to be ploughed up this year, and within easy reach of eighty or a hundred acres of swedes and other roots, into which sheep and lambs must presently be turned. Then there is the stack of threshed straw close at hand, with which warm quarters are provided for the ewes; and the hay on which the sheep are fed in the morning and evening, as a change from swedes.

The dead-fold is formed of wattled hurdles bound about with swathes of straw. Here the labouring sheep with lambs unborn sleep at night, and others with lambs too young and tender to be left out with no protection from the cold save that given by the hurdles of the pen. Just without the dead-fold is the shepherd's moveable iron hut. Warmed by the stove, it is not comfortless; but the deep, long sleep after the hard day is a luxury the shepherd may not take. An hour's sleep—a full hour, for he is asleep as soon as he is down
PLOUGHMAN AND SHEPHERD

—is all he can expect, even with aid and relief. A flock of twelve score pedigree South Down sheep at the height of the lambing season is no light responsibility.

A full feeling of responsibility—with a fearlessness of it—this is a sign of ripe manhood in any rank of life. Who that knows English countryside has not seen it in a shepherd, or even humbler labourer? Self, of course, is of the very essence of this engagement; the personal interest and natural desire for gain, mingled with the pressing sense of duty. Each lamb that survives the tailing time—in other words, the untailing time—is sixpence royalty in the shepherd's pocket. Each lamb helps to keep the pot boiling at home. The shepherd watches all—knows all. Lambs born in the moveable pens must be brought into the fold after sundown, ewes too. This has been a blessed lambing time on Thriving Farm, a season in twenty. Not one mother has the shepherd lost, and only three children. A hundred lambs are yet to come, but with weather kindly—cold but dry at night—all will go well. The whole flock delights the eye of its master.

It was very different last year, the night scour killing many a lamb. The shepherd had to practise imposition uncalled for now. He tied the skin of the dead lamb about one of the living twins of another ewe, and presented the child to the bereaved mother. The sheep knows her child rather by smell than sight, so that after washing and fleecing ewes
and lambs cannot for a time recognize each other, and there is confusion in the flock. So the grieving mother, if suspicious at first, will presently be consoled, and take to the foster-child. With a lamb that has lost its mother a shepherd is driven to force instead of device, tying up a ewe beside the lamb until she takes it for her own.

Trance of Man and Butterfly

The butterfly is soon to awake; its winter trance, deep almost as its sleep before birth, is closely allied with those states of prolonged torpor into which various animals, including man, are often plunged. A close study of these strange sleeps of insect, reptile, and quadruped has yet to be made. It might result in good discoveries for human life. Dr. Braid, one of the first to reason on these states, held that Indian fakeers could throw themselves into a torpor or trance resembling the winter sleep of the brimstone butterfly or the dry-weather sleep of the snail; but he dared not believe in a trance lasting over six weeks. Sir Charles Wade and Prince Runjet Singh were at Lahore in 1837, when a fakeer, said to have been buried alive six weeks before, was exhumed. Wade and the prince may have been tricked in some amazingly clever way, but this is what they saw at closest quarters. The fakeer was exhumed, and taken out of a mildewed sack. He appeared lifeless—a stiff, shrivelling
TRANCE OF MAN AND BUTTERFLY

mummy. His servant began to bathe him with warm water, to rub him with ghee, a kind of butter, and to straighten the limbs. The fakeer's mouth was opened with difficulty, and the tongue, pulled out and let go, flew back like a spring! Finally, the fakeer breathed, stirred, woke to life, and reproached Runjet for his unbelief. This case of fakeer trance is perhaps the most trustworthy, though others have been reported on by Englishmen. Unfortunately, Wade was not present at the burial as at the resurrection scene. Once accept, with Braid, that a man can throw himself into a trance, remain in it six weeks, and be restored to consciousness—need one doubt, with Braid, that such human trances might last for a much longer period? Many hibernating animals enter these trances fat, and come out thin; for, however low the vital functions may sink in hibernation, a certain amount of tissue is spent whilst it lasts. But it seems the fakeer did not even feed himself up against this six weeks' trance.

If the trance were genuine, might not a man remain dead-alive for a longer period, fed up against it on a very nutritive diet? How do the seeds, Rip van Winkles of the vegetable world, manage, which lie dormant for a hundred years on the hanger under the beech, the English upas tree? As for butterflies, I fancy that those which hibernate in the winged or perfect state are eaters. The brimstones are—for butterflies—large eaters; they may go into winter quarters fed up and fat, as the salmon enters
the fresh water for the spawning season. Tortoiseshell butterflies, small and large, and other members of their family, are feeders; so is the hummingbird hawk-moth, which sometimes hibernates in its winged state.

A Study of Starlings

Though my starlings do not build in earnest till April is far spent, some of them now begin to choose nesting sites. A starling, on a soft February day, will carry up a straw to its quarters under the eaves, casually drop it there, and forget all about it. On such a day, in the sunshine, what a lovely gloss and glow of jewel colour is on the starling's dress! Then his "subtle conversation"—as a forgotten bird poet, Hurdis, described it nicely—is delightful.

The starling is one of our bird intimates. I confess to a slight prejudice in the past against him. Wild English birds, tamed and taught tricks, lose caste. Like chained cockatoos and brassy parrots that scream and swear, the taught starling is not the real thing. Perhaps the bird need not be pitied, like the caged skylark, for, taken in callow babyhood and reared by hand, the starling with the split tongue has never known the joys of the wild life. Sterne's starling of the endless plaint—"I can't get out, I can't get out"—need not move us; for, to be so unnatural a talker, it must have been a cagebird all
A STUDY OF STARLINGS

its days. But, whether pity be excited or not, the talking starling grates on us often. Again, the association of mere mimicry with the starling’s song, even in its wild state, may incline us a little against the bird. One might suppose, to hear people talk, that he had not a note of his own. But live for awhile in some farmhouse or old manor-house, with grounds frequented the year through by several pairs of starlings, and you get on very different terms with the bird.

It is quite wrong to regard the starling as a mimic and no more. Is the brilliant pianist, who does not himself compose, but renders the music of Mozart or Mendelssohn, a mimic? Did Bartolozzi mimic when he stippled on those wonderful plates the pictures of Stothard? If there is originality in the pianist and the engraver, so too there is in the starling. No doubt the wild starling, like the tame, often does merely copy other birds. This winter I have heard the starling utter the coarse guffaw of the green woodpecker over and over. But when the starling settles to a long, rapturous lay, it is another thing. In this true song occur the notes of various birds, the jackdaw’s frequent and unmistakable.

Yet, as a whole, the song is the starling’s and no other bird’s. With melodious whistlings, with clickings, charming shakes, and undertones, deftly he can, if he choose, adapt and mingle the music of many a bird in whose company he often finds himself. Then a choice medley he ripples from the apple tree
THE FAERY YEAR

whilst we rise and make ready for breakfast—a breakfast bird I call the starling.

"Oh, blackbird, sing me something well,
While all the neighbours shoot thee round."

But blackbirds' lay, take the year through, is stinted dole compared to starlings'. The starling sings often to himself; no starling rival or mate is near; but, perched on the house-roof or tree, he will sing softly, a gentle crooning, half an hour at a stretch. It is as an inspired song, in this at any rate—he sings as though he had no notion what may be coming next; there is no impression of fastidious phrasing or of set performance about this joyous starling song. These are the garden and homestead starlings. There are also considerable singing parties to be met with in autumn in the hedges. I have heard a sound as of hundreds of twittering linnets coming from a farm hedge, and have been surprised to find that it was made entirely by starlings.

Finally, there are the vast starling congregations, in the main dingy birds that have not put on the full jewelled dress. These congregations are not yet breaking up. I have seen large bodies of dingy starlings even in mid-May. Eve after eve they assemble at a particular point to sing their hymn. Then up and away, with a rush of wings, loud as the storm in the pine-tops, to settle again in some thickets or tree-clumps, and drop asleep. The evening hymn is raised and kept up by every member of the congregation. In this amazing
A STUDY OF STARLINGS

monotony the myriad notes are so thick and ceaseless that the whole is as one sound. It is as impossible to single out one starling and connect it with a particular note or part in the hymn as to single one bee out of the murmurous cluster and distinguish its share in the volume of melody. Perhaps there is some kindred emotion of bird-flock or bee-swarm which calls forth these concerts or volumes of sound. With bees, however, there are swarm murmurs of pleasure and of rage, if not also of some other agitation, perhaps fear. Certainly, when the hive is angry, it utters a note quite different from the murmur of peace and plenty; a shrill and appalling sound to the ear. Whereas the murmur of the starlings at roost time is ever the result of the same feeling—one, it may be, of pleasure that the drowsy night comes on.

A scene in bird-life in the flock which resembles this great starling hymn, save that it is a scene always of the full day rather than the eve, is a gathering of the linnets and the finches (mainly greenfinches and chaffinches) in the trees near a rich feeding-ground. In January and February one may see these birds so thickly massed about the little heaps of artificial manures on grass lands as to hide the colour of the ground. Some thousands will crowd and flutter about two or three heaps where the food is most abundant. Alarmed, they fly to the nearest trees and hedges, where for a while they will sit, keeping up an intense chatter of indescribable notes, of which ordinarily one hears little or
nothing in finch language. To this chatter, as to that of the starlings at roost time, every individual in the flock appears to contribute. The sound neither rises nor falls; it preserves its dead level. It is an absolute monotony. Only a few outlying linnets may take a line of their own, and, instead of adding an indistinguishable note to the bird babel, sing a proper song—for the red linnet, like the corn bunting, is quite a January and February singer on fine days.

This finch and linnet monotony, like the starlings', seems to me to be the result of agreeable or soothing feeling in the performers. But none of these unanimous concerts among birds approaches in interest and charm what in "The Glamour of the Earth" I described as a linnet song-storm. It has once been my fortune, and once the fortune of a neighbour on another occasion, to hear this extraordinary outburst. But if the performance I witnessed was a storm, his was a tempest. Think of thousands of birds, massed in a hedge in the lonely downlands in late summer or autumn, suddenly bursting into one torrent of song. This is what happens at times among the linnets. Linnets are exceedingly common birds in the South of England now, and perhaps anybody who takes the trouble to watch them in late summer after they have flocked has a chance of being present at one of these song-storms. No lover of nature who has heard it in England will ever forget it.
BEFORE WHITE VIOLETS

February Flowers

Between snowdrops and white violets there are not a great many harbingers of the spring, even should the days and nights of February and March be mild; or, if there are, they remain obscure except to the curious searchers. The February cuckoo never calls for me, and, if he did, I think I still should doubt, and find a new significance in Wordsworth's query, "O cuckoo, shall I call thee bird?" Still, a few springing or flowering things are noticeable to-day. Thus, in cosier coppices and warm hedgerows, many plants of the dog mercury have thrust through the soil, and have scarcely unrolled their leaves before they show blossom sign. The dog mercury is an uncouth figure at first appearance, crumpled up as if nipped by cold, not unlike the tender bracken fronds when these uncrinkle in May. This mercury is a modest, small plant, often overlooked in February, but much helping by-and-by to give the coppices their glorious sheet of green. The wood sallows are much more noticeable. Always in February they look beautiful, with their pearl-lined twigs, each pearl creamy and so satiny soft; it is scarcely better to look at, this sallow, in the days when its gold dust is fit to scatter. Elsewhere yews are flowering unmistakably, showing their tiny balls of yellow slightly tinged with red. But the "living smoke" of this grand and sombre tree will not rise in the air in February.
Meanwhile, at sundown, February grown forbidding will sometimes show sky and landscapes with the feel about them more of winter than spring. Such a scene is when a full moon rises into a sky which has not yet had time to catch any of the warming flame of the west. It is winter to the human sense indeed when a large yellow moon, seeming strangely near—as on a misted night in the hills amber Arcturus or diamond blue Sirius will sometimes look—lies just above the horizon among sinister banks of leaden cloud; and as the light thickens the green of the stern pines against the sky is the darkest shade of green imaginable. But most wintry of all at this hour and scene is the red-brown expanse of rough park grass among the grey oaks.

Another hour and the earth will be in monochrome, with the dead grass, about which there is always such a hopeless look of winter, quite undistinguishable. The dark of the night is never so wintry as the duns and greys of the day, even of the brilliant sunshine. Then, too, Venus, after dark, still waxes in splendour, tarrying longer and longer in the sky, and giving a suggestion of summer richness to February nights.
MARCH

The Barrow in the Wood

We have begun to open the round barrow near the highest point of the wooded hill. This is one of several barrows in the wood missed by the Ordnance Survey. Three or four of these barrows are hidden by the hazels and birch, and there is no sign that this, the smallest of them, has ever been touched by spade and pick since it was piled up, thousands of years ago maybe. The top is about five feet above the level of the surrounding ground. This, for a round barrow, is low, but it must have been worn away by time and weather, and, perhaps, by farming operations centuries ago. We are cutting a trench through the middle of the barrow from north-west to south-east, excavating the soil about five feet deep.

So far as we have worked, spade and pick have brought to the surface only a fairly stiff red clay, mixed with flints. This proves that the mound was piled by man, for the subsoil of clay around is not nearly so deep—we should have been in the chalk at three feet anywhere about the mound. Just beneath the surface of a larger barrow two miles away we have found what I think are arrow and spear
heads, with other relics of the New Stone Age; also, oddly enough, a quantity of broken pieces of, not British, but Roman pottery, of various colour and make, some of rather finished and decorative design. But in or about this barrow we have not yet found a flaked flint or spear head. The centre of the barrow may yield some better treasure, however, such as incense cup, food and drinking vessels, or cinerary urn.

Beautiful specimens of pottery, probably belonging to the end of the Stone Age and to the succeeding Bronze Age, have been found in these round barrows beside the bones and hair of the early British leader. Leader surely he was. How otherwise can we explain the vast toil which these people with rough stone and stake undertook when they piled the mounds? And, if leader, it almost follows he led in war in those turbulent times among the hill fortresses of southern England.

Within a stone’s-throw of the barrow in this secluded spot, whose solemn quiet is accented by the wind in the tree-tops and the wild thrush carol, are the remains of a deep ditch and bank that may belong to the same period. They are much less worn away and degraded than many of the mysterious lines or “devil’s dykes” that score the woods and wastes of barrow England. In the making of the dykes and round or long barrows such worked flints as we find to-day could have been used only indirectly. There could be no digging or piling up to the least effect with such small stones. Great
THE BARROW IN THE WOOD

stakes of hard wood may have loosened the soil, and the bare hands been used for shovelling out and for piling up the mounds and banks. If so, man in those days burrowed like the very badger of these hills and hollows.

Finches and Wrens

Among small birds which have of late years grown in numbers in England are red linnets, goldfinches, and wrens. Goldfinches, if rare in some counties, are now really abundant in others. I often visit one district where the goldfinch is more abundant than the chaffinch, and much more so than the bullfinch, though neither of these is scarce. On commons where the goldfinch was a rare bird twenty years ago we can see a party of twenty or more any winter day. The goldfinch parties are feeding on such seeds of the rag-wort as are left on the dead and dry flower heads, and on seeds of dwarf and other thistles. The goldfinch might be far more abundant, yet nothing could take from it the look of distinction. One must always stop to watch goldfinches where one might pass by any other finch. Their ways have such a refinement; the song of the goldfinch, its flock twitter, dancing flight from thistle tuft to thistle tuft, perch and balance on the slenderest stems of plants, gold-barred and red plumage—each is so charming. Comparatively—but only comparatively—the other familiar English finches are coarse; the goldfinch is the fine-finch.
THE FAERY YEAR

Wrens here, there, everywhere. Wrens scattered singly along every hedgerow. Wrens on the gorse commons, in the coppices, gardens, shrubberies —wrens by the river sides. The English countryside is full of them, and no livelier, hardier mite of a bird flies. The wren is master of the neatest, completest devices for winning its microscopic living, which keep it plump and cosy through most starving times of winter. It will run up and round the lower portions of the trunks of mossy or lichened trees with the ease of the tree-creeper. In sunshine of February and March, when the winter gnats are hatching out into the winged state, the hedgerow-hunting wren will take these in the air, making swift and sure little darts of a foot or two from the ground. But ordinarily it is a hedge creeper, working in and out restlessly, and uttering, when approached too nearly, its sharp little protesting note, like the winding up of some miniature machinery.

One is struck, whilst watching wrens, by the way in which their plumage—to our eyes—harmonizes to a shade with the brown colouring of the winter hedge bottom. No other hedge-bird I know matches its winter environment quite so well as the wren—not hedge-sparrow, nor song-thrush. What, however, is the foe against whom the wren is so protectively coloured? Is it only some foe of time long past? To-day, in England, the sparrow hawk or kestrel seems the most likely foe; and, considering the tangled spots which the wren hardly
FINCHES AND WRENS

ever leaves, save for shortest flights, the hawk danger would not be very serious, even were the wren in contrast rather than in harmony with its haunts.

Up to a point we all believe in protection by colour. But I am sure that we are in danger often of setting too much store by it. For one thing, protection by colour—the brown wren in the brown hedge bottom, the green caterpillar on the green leaf, and so forth—must surely be extremely close and accurate to deceive the creature of prey. The kestrel hovers seventy feet or more over the brownish field, but the brown mouse below does not escape that terrible eye.

The Economy of Sleep

In March many of the animal sleepers awake. The squirrel, one of the lightest of all, has been wakeful throughout this winter, and we can see him whisking about in the hail or light snow-storms of February as lively as in summer. Last year’s great harvest of acorns, fed on for months past by the wood-mice, pheasants, rats, and wood-pigeons, is not yet quite gone, and under the most fruitful oaks the squirrels are busy now. This month, too, the adder awakes, comes from its shelter among dead leaves or faggot piles to sun itself on bright mornings. Then, March is the month for the awakening of the sulphur butterfly.

A little while ago, touching on hibernation, I
THE FAERY YEAR

did not mention anything about the cause of this and kindred states. Clearly animals, as a rule, are thrown into these trances to escape not cold but starvation. On first thought, the butterfly seems to be an exception. It practically does not feed, so starvation need not be guarded against—is what occurs to one. Yet if the butterfly were to retain and exert its full vital energies when winter set in, it would spend its tissue far more extravagantly than it does in deep sleep. This would be a mere squandering of vital energy, serving no purpose, even if at the coming of winter the butterfly were fat and strong enough to live on itself till the following spring.

With those warm-blooded animals that hibernate completely—as the dormouse—the temperature of the body is little higher than that of the air. Their life functions are greatly depressed. It is almost suspended animation. The pulse is reduced to a tenth of the usual number of beats, breathing to a thirtieth of the usual number of respirations. A very little fuel is enough to keep so slow a fire alight, and this is paid out by the surplus of fat stored in the sleeper. It is the most economical life. But there must be no going to sleep hungry and thin, or the sleeper might not live to wake: it would consume its meagre store of food, and the fire of life would flicker out.

I spoke about the brimstone butterflies feeding freely at the close of summer, but the subject of what provisions are taken by other hibernating
THE ECONOMY OF SLEEP

insects is obscure. Take the earwig. It hibernates freely in the familiar form in which we know it during the summer and early autumn. Only the other day, turning some mossy stones in the coppice, I uncovered an earwig, which was wakeful enough—the stones had been warmed perhaps by the sun—to run rapidly to shelter. The earwig, perhaps, must feed against the winter fast like other sleepers.

The deeper the trance the smaller the waste of tissue. Some forms of life fall into trances in order that they may survive moisture famines. One authority stated that certain *animalcula* had been revived by moisture from a trance of twenty-seven years. It is Humboldt who mentions the alligator and the boa-constrictor of South America as sleepers through seasons of drought. In England snails both hibernate and aestivate. The adder hibernates when its prey hibernates; what alternative has it but death? The hedgehog is in the same position. Neither is equipped for migration. But it is interesting to turn from these to the English bats and the English birds of summer passage. The bats, except, I think, the pipistrelle, sleep deep through the winter—evidently because the moths and other insects on which they feed are also sleeping deeply—though not in the winged state, like the brimstone butterfly.

The birds migrate when the insects on which they feed enter upon winter states—egg, chrysalid, or caterpillar. Why do the birds migrate instead of hibernating? Tremendous dangers attach to migration. Were it not safer for the bird to sleep
away its winter, like the bat? There is no good record of bird hibernation: yet we never hear of any physiological reason against it.

The Barrow Inventory

The mound on the hill, which we began to open ten days since, has proved to be an early British burying place. I was only present during the first day’s work, when no relic of stone or bronze man was discovered. But on the second day pottery was found, and during the past week there have been several fresh discoveries.

The crowbar struck and cracked a large jar which is quite black, with two raised straight lines round it. Inside the jar were two long bits of what looked like rotten iron, which was encrusted with some red substance, and was very brittle. The third day’s work brought to the surface a large jar (broken) and a plate. On the latter were three birds’ bones, and round it several pieces of the rotten metal similar to that held in the jar found previously; also a curved piece of metal, glittering and covered with verdigris. The third day brought a small red jar, with filagree work round it, and a second plate, broken into four pieces. The plate held ashes and the large bones of some animal, including part of the jaw, with great teeth, which are perfectly sound. Finally, there were a large number of small pieces of what the finder takes to be copper, each ornamented with dots and
THE BARROW INVENTORY

circles. The metal was bright green on one side, brown and shining on the other.*

Possibly all the pieces of metal taken from this barrow are bronze. Other metals are rarely found in British barrows. It is one of the strongest arguments in favour of a distinct age of bronze before one of iron that so many round barrows have only stone and bronze implements. Where iron is found in barrows, it is always rudely fashioned compared with the bronze. Many things go to show that the people who buried their dead in the round barrows, and wrought with skill in a mixture of copper and tin, were not yet metallurgists in iron. Some believe that an early iron age came before that of bronze, as a later iron age came after it. But what has become of the iron tools and weapons? It is incredible they have been completely wasted by time and the earth. If this were the case, we should expect to find their dark stains in many places.

Copper in unalloyed state is found in barrows in foreign countries, but I think it is rare in those in England. Copper ornaments, as those described to me, are far more likely to be found in a barrow than copper implements. In foreign countries these implements are found fairly often. Our bronze age ancestor in Britain had perhaps a copper age contemporary in the New World; but the art of

* Quite lately the plates and bits of bronzed iron taken from this barrow have been declared Roman by the British Museum; but some other relics seem to belong to a far more distant time.
the latter was less advanced—the bronze was worked by fire and stone mould, the copper merely beaten to the required form.

At best we but grope in a twilight of knowledge about the people of the barrows. Sometimes, just as we think we are gaining a clearer view of their roaming lives, some new theory threatens to thicken twilight into darkness once more. We were imagining the old stone man, buried deep in the gravel drift of English rivers dry an æon since, sealed up with his rude tools of stone among the remains of the great beasts he stalked (or was stalked by); and separating him clearly from the new stone man with more human taste and art—when we were asked to start afresh, to imagine a connecting-link between the two, a middle stone age man. A very rude flaked flint, which I picked out of a great perplexing store of stones scattered near the newly-opened barrow, is thought by one authority to be the work of the old stone age man, maybe near the time of his wild morning, but others might call it middle stone age. I found it, not in drift, but at the surface, in a land where barrows and dykes abound.

Elms in Flower

The elm flowers this year early. Many trees were perceptibly thickening a fortnight since, and now they are wine-red. This red of the elm is one of the colours of the English spring which are
ELMS IN FLOWER

much overlooked. Reds, yellows, and browns of a hundred hues we associate with autumn; blues and greys with the woods of winter and the far horizons. The spring is praised for its greens. Yet spring, when one looks into the woods and landscapes, is warmed with red and umber shades, not so boldly splashed about the foliage as those of autumn, not bitten out so intensely, but subtly beautiful. The red of the common elms in March—Wych elm, now a-flower, is not so attractive in colour—the red of the oaks in May, the browns and yellows of the elms in April,—these are among the choicest but least noticed of spring colours.

The Oxeye's Vocabulary

The irresolute rooks swoop and waver about their nest-trees, though the elm to-day is more forward than is commonly the case by the time many of the nests have been touched up, relined even. Their notes are growing far less harsh. A rook can caw softly; he has a touch of melody in March. But no birds at this time are so remarkable for the additions they make to their calls and conversation as one or two of the titmice. The marsh titmouse is said to utter the largest variety of sounds. He may; but watching and listening to four titmice lately—cole, marsh, blue, and great—I have found the great tit far the best performer.

The great tit's vocabulary is surprisingly large
on a brilliant March day. The oxeye is the chief musician among titmice. Then, he has no superior in colour and spright. His lemon and black and white plumage scarcely dulls at any season of the year; he is more observant of men, and more protesting and inquisitive towards them, than the other titmice. The most musical of his March notes is a clear one that has a single tinkle of a tiny silver bell. The timbre of this varies, perhaps, slightly in oxeyes, but it is always beautiful. Now, too, he has a dancing “tze tewey, tze tewey,” which he will exchange for “tze, tze, whee,” the last syllable having the poignant ring of the redstart’s note of agitation.

This is far from all of the oxeye’s spring vocabulary. There is the whetstone cry, and presently there will be the “ter, bit, ter, bee” sounding through the leafing coppices. One minute the oxeye is uttering the note—sometimes, I think, denoting anger—like a rough, strong zizz of a grasshopper. Next minute he cries quickly “chip, chip, chip,” or else “tit, tit, tit, tit.” Often the notes are jumbled up anyhow; often the same tit will restrict himself to a particular call for half an hour at a stretch. What one likes so much in this titmouse is the challenge in his utterance and manner. He is always up in arms.

The long-tailed titmouse seems the meekest, mildest of small birds. He never adopts a scolding way save when a sparrow-hawk or other bird of prey approaches. Then he adds his might to the
THE OXEYE’S VOCABULARY

storm of hisses with which the titmice troop greet the approach of a hawk. The anger or terror, or both combined, of the small birds is very soon over. The hawk strikes down a titmouse, or passes off baulked, and the titmice instantly forget all about it, and go on sliding and flittering from twig to twig, thoughtless of further danger.

The Angling Hamlet

Time out of mind the trout season for the two exquisite waters that wind through the marsh began of old at the middle of March. So one pictures the old school of anglers, when the ancient inn stood on the site of the present, coming hither on the evening of the fourteenth. They were keen without doubt as the keenest to-day. How one would like to see them getting out and fixing up to-morrow those long, fine tapering rods, and hear them hold forth on fancy flies, flies that never were on earth or sky save on the fisher’s cast. Unhappily no record was kept of these anglers, the dates of their coming and going. The old inn or the old water-keeper—if there were a water-keeper—handed down no little book such as that which in faded ink tells us the names and dates of those who fished the Bakewell and Rowsley meads in the famous May-fly years. Could the old angler come back to Paradise, he would find a hard heir indeed in his old haunts, and his right to fish, in his old
style, at his own season, much restricted. Otherwise he would have no cause to complain of change about the place or folk: for this is the Anglo-Saxon hamlet of Domesday, its name scarcely changed in the spelling by eight centuries. Mead and marsh, osier copse, elmy lane and uplands, the whole place is steeped in a wonderful dewy freshness and a deep repose, things diverse, yet here never clashing—always the radiant morning of youth, always the accumulating quiet of age.

Less than a score of cottages, mostly thatched, a mill, the angling inn, and the seventeenth-century farmhouse, a population of fifty—or, all told, sixty at harvest time—this is the hamlet. The mill-wheel has ceased to turn, like a dozen others from source to sea on the stream. The trade of the old small mills is done. In some places, as though in sympathy, the very head springs have ceased to flow, so that you see mouldering woodwork and rusty iron gear lying on the dry bed of the once brook—there was a brook, whose waters, trembling off the slow wheel, caught and broke the sunlight to a spray of sapphire ruby fragments.

But, if the wheel has stopped, the mill of the angling hamlet has suffered in no other way. It was never deeper in the meadow grasses than in the May-fly season nowadays; its old willows never sprinkled a richer gold flour than they will this month and next. When the springs are high about this elmy hamlet, and the even elmier angling village or group of hamlets a mile up-stream, crystal
THE ANGLING HAMLET

brooks, pebbly runlets, are breaking out everywhere. The edges of the roadside sing and glance, and every meadow hedge in the narrow valley seems to shade in summer the haunt of waterhen or grebe.

We can no more word-paint the water than we can the sunbeam. The intenser the feeling for the beauty of these fountains from the benign chalk, the less the power to communicate our thought of it to others. Ruskin went nearest telling what he saw in a chalk stream—a "welling of stainless water, trembling and pure, like a body of light... cutting itself a radiant channel down to the gravel, through warp of feathery weeds, all waving, which it traverses with its deep threads of clearness like the chalcedony in moss agate, stained here and there with the white of grenouillette." Here, at least, we have a suggestion of the play and sparkle of the chalk stream, the tremulous, sinuous lines drawn through the fast, smooth currents. But whoever went near to write down its responsiveness to the slightest change in the mood of the March or June day? The quickest plate is insensitive to the sunlight compared with the face of the chalk stream of the angling hamlet.

Titmouse Treasure

The long-tailed titmice, pair by pair, are leaving the woodland parties of titmice, golden-crested wrens and tree-creepers, to seek nesting sites. With
the missel thrushes, they are the earliest builders in the wood. I cannot remember searching vainly in March for the framework of this wonderful nest in spots favoured year after year. Several English birds build as neatly as this titmouse. The golden-crested wren, the common wren at its best, have a finishing touch as exquisite as the long-tailed titmouse. So too the chaffinch—in some cases the goldfinch. Considering the material which it uses for weaving the cup to hold its treasures, a blackcap is at times as cunning an artificer as any. But for elaboration within and without, beauty and ingenuity joined, no bird in England equals the long-tailed titmouse, if the nest be begun in March, and, after a fortnight or three weeks of daily work, completed in April. Nests begun later show scamped work, the outer layer of grey lichen being thin, and the number of feathers used for the lining, which should be as warm as an eider-down quilt, small. I have found a few nests of this character. But usually the long-tailed titmouse's nest, whether built in the fork of an ash tree in the wood, or in blackthorn or whin on the common, is perfect to a touch. A slovenly nest is rare. There is nothing like the difference between nest and nest which we notice with wrens and chaffinches.

Like the long-tailed titmouse, the golden-crested wrens are withdrawing from the parties and moving in pairs. I believe that much of the food they search for in the spruce firs is to human vision microscopic. There are people with sense of hearing
TITMOUSE TREASURE

too gross to take heed of the golden wren's call-cry. Sometimes the bird will change its needle-sharp and simple note for a quick little shiver of a more song-like or courting character.

The Eye for Flowers

The refined eye for the wild flower, singly or in a little group or company, brings pleasure of a choice kind. It is one thing to fare richly on the sight of a great field or down-side sheeted with the poppy flame, or on the massed blossoms of the riverside mimulus, shining yellow boldly spotted with brown—another to spy out shy flowers that are only for the careful eye. One may live long among hedges and coppices favoured in March by the moschatel, and yet not know of its existence close at the very garden gate. It may take us twenty years to see toothwort or herb Paris or butterfly orchid growing in coppices of whose life we imagine we have taken a census. For solid glows of wild-flower colour I should not choose the Isle of Wight, but for rare plants and their combination, and for early flowering ones, no part of England is more favoured.

A Hampshire friend often writes to me of the Island flower life in spring and summer and the colouring of the autumn. Any day in the year a bouquet can be gathered. Now the rare narrow-leaved lungwort is in bloom. I saw the garden
lungwort—"Jerusalem cowslips" of the villagers—in bloom a fortnight ago in a much less sheltered district; indeed, in many cottage gardens it has been out in February and the beginning of March, with the scented mezereon that looks like a stunted almond tree. My friend says that a week ago he was searching "under heavily-laden hazel trees, whose ripe pollen fell in clouds, for the narrow-leaved lungwort, a plant only found on the tertiary beds. It was out in full beauty, two plants seldom bearing petals of the same shade. The leaves have a beauty of their own, for the paler blotches of green upon their surface give them a singular appearance. Like the dark patches upon the leaves of arum and purple orchid, they are difficult to explain. One can understand it being due to specialized chlorophyll, but what is its mission in the realm of plant life?" In the Island, near Shanklin, daffodils cover acres of woodland. Taken from the wild to the garden, they often refuse to blossom. Butchers' broom and lesser periwinkle are also flowering profusely.

My friend raises a curious question about the spotted leaves of lungwort. I have often wondered why purple orchid and arum leaves are blotched with dark brown or black. One theory is easily suggested—it is an advertisement to catch the eye of insects so that these may come and bear pollen from bloom to bloom when presently the plant ripens its pollen. Certainly the spotted leaves may make the plants more conspicuous. But with
THE EYE FOR FLOWERS

arum this strong objection occurs to me—many of the plants have plain leaves. Search any hedge side or bottom, you find a considerable minority of arum leaves quite plain. If the spotted leaves had the better chance of success in the competition for insect visits, the plain, by natural selection—a devout Darwinist will say—must soon die out.

The garden lungwort's petals show a notable change in colour: they begin rose-coloured, turn to azure, and end purple. The leaves give to both plants the name pulmonaria, because they bear a fanciful likeness to the lungs. In old England the lungwort was important in leechcraft. Culpepper does not mention this plant in his "English Physitian," I think, but he has another "lungwort," a spotted lichen. Both were sovereign remedy for lung disease, because they looked like lungs. This was one of the secrets of the odd "doctrine of signatures"—like cured like. It is possible that to this day the doctrine, unknown, has influence among the village grandams who hold by herbs. The doctrine of signatures seems not, like the charms against warts, and other features in village life to-day, to date from Anglo-Saxon times. I believe it is not mentioned in the leech books and manuscripts before the Conquest.

Star Time

Judging by the tinkle of a sheep-bell in the dead still evening air, the shepherd has moved his flock,
lamb and ewe, from the hollow by the coppice to the great swede field at the top of the hill. Here at night he keeps his long, and, now that less aid is needed, his lonely, vigil in a glory, world-old and nightly new. To the east and south, and partly to the west, owing to the high position, not a tree obstructs his view of the skies. On a clear night the Hare, seen from this hill, glistens quite distinct under awful Orion, and, looking more eastward, even before the night has blackened, we realize that its pursuer, the Greater Dog, has other brilliants besides the Koh-i-nur of heaven, Sirius.

Most moving in these eves of March, and most superb of all, is Venus, waxing bright and brighter for hours till she sets behind the dark slope away west. The Star of Bethlehem that guided the shepherds hardly burned intenser. The shepherd is not unconscious of this scene; he can watch the starry hosts for weather portent; they may help to tell him whether it will freeze or rain. He may be responsive too, in a quiet way, with small outward show, to the beauty of it all. But he cannot tell the hour to a quarter or a half by the stars and planets. The night hemisphere, unlike the day, is not for him a clock.

I never met a toiler of the downs or woods who could tell the time by the stars. There was a farmer in a story who could do so. Looking up one night at lambing-time, he took note of the position of the Charioteer and The Twins, and said to himself "one o'clock." I fancy that if this
shepherd, Gabriel Oak, were founded on fact, his original was singular in the class. Plenty of shepherds can tell the hour fairly well by the sun; but for the night hour—given even the clearest skies—the old turnip silver watch—or its meretricious successor—must be pulled out. Was not Oak too book-learned a man to tell the time by the stars? True, this accomplishment is such as a book-learned, an almanac-learned, man might show; but it is even truer that this is the kind of knowledge which the men of old who did not know anything about books and science would reach by simple, admirable means.

On the whole, I think our country folk know to-day too much to make the night skies their grand timepiece. The trouble, even on the clearest night, let alone say seven o'clock on a March evening, of seeking out the Pole star, and then of noting what star or constellation is southing—this might be too much. But Gabriel Oak, to know it was one o'clock, had to remember so much more. He had to remember that, on that particular day of the month, the Charioteer would be at the zenith at a certain time. If the stars would always be in the same quarter of the heavens at the same hour each night—and the night were perfectly clear—we might even in these days of ready-made time, do now and then without our watches, like the old-fashioned woodman or shepherd by day. This would much simplify matters. As it is, we save time, no doubt, and secure accuracy—for even
Gabriel Oak could find on his great sky-dial no second, even minute, hand. On the other side there is a real loss in habit of observation and memory.

The Music of March

One time of the singing birds is the dusk of some wild March dawn. In spite of tradition, the missel thrush is not the only—or the chief—specialist of the storm. True, he sings loud and bold through the gale, though he also revels in the mild, brilliant mornings of winter and early spring. But the song thrush in March and April is also a storm thrush. A little after five o'clock in the morning of mid-March the song thrushes and blackbirds begin. At first come fragmentary snatches; presently, all the thrushes are wide awake before six o'clock, the air flooded with their rapturous songs. There is little to choose between the matins and the evensong of thrushes and blackbirds, but I am sure that it is not through a subjective feeling in us that these birds' songs seem finer in the mysterious hours of dusk than during the familiar daylight. It may be argued that these hours appeal to our æsthetic sentiment, and that we imagine them as appealing also to the bird. But people with no particular feeling for dawn or dusk have only carefully to listen and contrast bird songs at different times in the day to
admit that the early morning and evening performances are the finest.

The cool of the day inspires birds with a richer lay. Later on in the season birds will cease to sing if the weather grows very hot; but I have often noticed that the music will begin again when the days grow cooler and cloudier. The cessation of song among English singing birds in August and September (till the redbreast strikes up) is due to other causes than the heat. I am thinking rather of the end of June and the whole of July. If the blackcap sings then, it is in the cool coppices; if the thrushes and blackbirds, it is at dawn and dusk only. But it is on a wild wet morning that the bird concert at this time of year is at its best. The thrushes and blackbirds love the driving scour and the wind-rocked tree.

Cock Wrens' Nests

The common wren is the only English bird I know the male of which builds on his own account a nest complete save for a trifle of feathers. Some nests of wrens, holding eggs and young, have no lining beyond the invariable inner felting of moss, but in other cases feathers are added, though not in plenty; and feathers I have not seen a male wren bring to his nest. Otherwise, the male wren nest is often as refined a bit of work as a bird of this species can make—which
is saying much. The male wrens, if not their mates, are now building. They have been working not only during the hours of sunshine which aroused the brimstone and the large white butterflies, but in the storms.

One male wren’s nest I have just seen complete. Probably it will never hold eggs, for there is no sign of a mate for this prying, ducking, voluble little bird. The nest may be forgotten and deserted within the next week. It may happen that a male bird, having built a nest, finds a mate and brings her to it, but I believe such cases are exceptional. The cause of this nest-building instinct, so strong in the male wren, is quite obscure. One old country idea is that the male wrens build the nests to sleep in. I doubt whether wrens ever regularly use their nests as sleeping quarters. Certainly at this time of year the male wrens do not house themselves thus.

The nest I have just seen is fastened to the scrubby and ivied trunk of an old yew—whose lustier neighbour yew was smoking gold the other morning. It is so perfectly in harmony with its environment that no one would find it save he saw the wren enter or leave it. Even when you know where the nest is, and look at it from a distance of a few feet, it appears nothing but a slight excrescence of the tree, or a thickening of the rough cord of old ivy which grips the trunk. Except the moss inside, its material was fetched from the ground just beneath, or even from the scrubby
COCK WRENS' NESTS

undergrowth, which yielded a number of thin, tough, dead yew-twigs, some three inches in length; these, as pliable as the withy the woodman binds his bavins with, the bird has used for making the entrance of the nest compact and firm. I watched him fetch one or two from the stems just below the nest. Across the lip of the entrance, a twig of the yew tree stretches at right angles to the nest—a convenient perch on to which the bird hops each time he enters or leaves the nest. In the building, too, this twig serves as a scaffolding.

The foundations of the nest are withering but still stiff ivy leaves, piled or packed up roughly. Then, for the sides of the nest, come rotted ivy leaves. Finally, on the roof, more of the stiff leaves. If the wren were really at pains to hide his nest—I am not sure he was—he gave away its position by his movements and his vivacity. After adding a scrap of moss or a twig, he will often come just outside and bubble over into song. He is constantly on the spot, scolding one moment, singing the next. He sings a dozen ditties (always the same ditty) in as many minutes; feeding, he sings between the very pecks; he even sings—sometimes—in the air, as he darts from tree to tree. As for his scolding or protesting way, nothing aggravates him more than a jackdaw or a rook. Various small birds during the nesting season resent the approach of a single rook, though a flock passing by or settling to feed in a field close by does not disturb them. The wren jars with anger, the compass of
the voice extraordinary considering his minuteness. Another sign, perhaps, of emotion—of a less obvious nature—in the wren is the habit of ducking.

The wren's nest in the yew, perfectly matching its surroundings, reminds one of other nests remarkable in the same way. Reasoning about this fact, and drawing conclusions from it, we must remember that the materials, gathered—as they so often are—close to the site, may naturally help to make the harmony.

The Dormouse awakes

The first large white butterfly—a hibernator no doubt—appeared last week, together with brimstone butterflies, which have been sharing the sweets of the Portugal laurel with the hive bees. The pipistrelle bat has awakened evening after evening of late, and in the copses the dormice are roused. They wrapped themselves up in a ball of dried grasses and leaves last autumn, and slept away the winter among the stools of oak and hazel underwood. When the woodman finds one of these balls, he knows whether there is a dormouse inside by the weight. He knows in no other way, for there is not the least sign of entrance or exit. The dormouse, like the hedgehog, seals itself up entirely, finishing off the work from the inside. For his own purpose the dormouse builds as well as any bird.
March Skies

To care greatly for variety and swift change in the cloud groupings and glows of evening, for the sounds, shades, and the feel of the early spring night, is to set store by English weather. A tedium of splendour sometimes marks the eve and night pageantry of lands with more settled and gorgeous seasons, the isles of Eden, in their "purple spheres of sea." We may imagine such a thing even in England during a long spell of dry summer weather, but not in March.

In March we can have full variety of evening and night scenes, some flushing with delicate colour and full of great natural music; others stark-black, and, save for the sound of the rain, dead-still—pure monochromes of night; and yet others that are weird even to a constant watcher of wood and down drama after the close of day. One evening in the week we are watching the two great planets gemming a sky whose depth of blue, above the sunset's influence, no thought could plumb. It is a blue never seen in the clouds above or around the setting sun; cloud blue is, by comparison, superficial; there we can see pure azures sometimes, or pure sea blues, untouched by green—such as Watts painted in his "Whither, Whence?"—but nothing so grand or solid as this blue, in which planets and Pleiades travel at seven o'clock on a March evening. This is the beginning of one of the serene, star-ruled nights of spring.
THE FAERY YEAR

But next night is entirely different. Its setting is more sinister than serene. At a quarter to nine Arcturus, lately up and pointed at by the handle of the great Plough, and Vega coming into view again, hardly sparkle through the film. The moon is ruler of the night. Like some elfin moon, she rolls up over the black rim of the haunted hill—a large, full moon, burning quite yellow through slowest moving mounds and lines of clouds; some of these her light turns inky blue, others rusty red. The whole scene is unearthly, and of a forbidding beauty. It is quite reassuring on such a night to hear the good, familiar call of the brown owl—which is nesting in a hollow in a great elm—or of the restless lapwing, awake and a-wing almost any night now, save, perhaps, the very darkest and wettest. A third evening grows night without a single star or gleam of moonlight. Owl and plover are still, and it is only by poring into the dark that one can at length divide the earth from the sky, and make out the phantom forms of trees and hedges. The Venus blues and the fantastic moonrise of a day or two ago seem hardly credible; and mornings break which, with great fogs and dripping twigs, turn the woods and gardens into autumn.

Such is English spring weather—it never suffers us to tire of any one kind of day or night pageant. Meanwhile every day of sun, shower, or mist alternating tells surely on the progress of plant and animal life. White violets, many having the edges of their petals tinged with blue, like a garden viola,
THE SCENERY OF NIGHT

have come with a rush within the last week, the banks showing in some places quite large patches of them, especially railway embankments, and the moschatel is in full blossom. The pipistrelle bat is out every day at dusk—often, in the cheating light, grey; like some great moth, and filmy to transparence—and one evening in March I saw the noctule flying slowly much nearer the ground than usual. This is very early for the noctule, which one does not expect till the swifts come in May, or much after the swifts leave in August. It is, perhaps, the deepest and longest sleeper of all hibernators in England. The hours of consciousness are but a fraction of this strange existence.

Nature's Grand Caravan

In his song flights, the skylark does not spring straight up but spires and drifts. But the song at an end, during his descent often he will drop head foremost to the ground, falling swiftly and dead straight from a height of fifteen or twenty yards. His head, being much the heavier end, carries him to the earth like a stone, but there is no danger of striking the ground, as he will always recover in time, and automatically. Probably the straight drop of the kestrel on its prey seventy feet or more below is done in the same way. In other English birds this dropping habit is not so common. When the
ringdove, after an aspiring love-flight, drops back into the tree whence it started, it never precipitates itself like the skylark; rather, it gradually lowers itself.

This power to drop straight and swift, and to recover without any effort before touching the ground, which the skylark shows, might be useful to our summer birds which are now beginning to come in. Wheatears, wrynecks, and chiffchaffs in small numbers reach us at the end of March as a rule, and a few days later come indisputably the first cuckoos in a forward season of migration, with the male nightingales and a host of summer warblers. At what height do these birds travel, and at what time —day or dark? Mr. Eagle-Clerke noticed at the Kentish Knock Lightship not long ago that migrating birds of many species flew so low as almost to brush the sea with their wings. I have seen blackbirds and other common species coming thus over the North Sea to the Norfolk coast in broad daylight. A correspondent, a few years ago, gave me an account of nightingales arriving in Kent. He saw them coming in the daytime, and they flew very low, only just above the water.

Gätke's matchless study of migration in Heligoland points to other conclusions than these. It tends to show that bird travel, in the main, takes place after dark, and at a great height. During insignificant journeys from the Continent, say from the French or Dutch coast to the English, it is reasonable to assume that the birds would just drop across the
NATURE'S GRAND CARAVAN

water, flying at their natural time, pace, and height. The long, exhausting, and dangerous journeys may well be done in a very different way, such as Gätke suggested—at a great height and pace, and in the dark. Storms threatening below, the birds might mount with ease to a more serene height, and keep at this plane, unless storms enveloped them, when they swiftly might drop earth- or water-wards.

When we watch the consummate ease with which birds ride the air in their song, food, and courtship flights, the difficulty, in especial stress and need, of lowering or raising themselves swiftly to a different aërial plane does not strike us as formidable. The flying effort is perhaps the least difficult thing about bird travel to understand. But how do the travellers find their pathless way? and what is the impulse which gathers them together—that vast motley crowd, strangers often in species and habit of life, the incomparable caravan of Nature?

The Anarch Rook

The rook and the house sparrow have in common a profound suspicion of man, and a strong taste for his neighbourhoods. The sparrow, with all his familiarity towards men, cannot be tamed as red-breast or thrush. The sparrow's vigilance towards men is, however, not more than the rook's. The rook in his aërial pleasantries, his softened language
at this season, his solemn gait, is often ludicrous. But he is never more so than when he musters up courage to come down into gardens and paddocks close to the house in search of fragments of food and refuse. An intense nervousness marks the bird then. The least sound disconcerts him. He hardly dare thrust beak into grass to seize a morsel of food, lest, at the moment of unguarded looking down, some danger should arise. And when the rook is feeding thus, we see him start and jump and flip his wings in a state of nervousness, an alertness for instant flight, which is very droll.

Starlings placidly feeding around, and still nearer the house, do not lull him into a feeling of security. No meal of the rook is more fearful than this. If he espies a large piece of bread or potato, and, after many sharp glances around and listenings, seizes it, he dare not break up and eat it on the spot. The food is taken away, preferably to the middle of a field, and eaten there. Rook-shooting once a year and rook-scaring at various seasons are at the root of this distrust of men and inhabited houses. Yet the rooks find no place so to their liking for nest and roost trees as those close to country houses and villages. I do not know of rookeries in a large or remote wood in any part of England, and if they exist they are not common. The history of the rookery has yet to be written. Engaging theories have been started about rook custom, law, etiquette, penalty. I fear they are chiefly of the fancy. The society of the rookery may be based more on anarchy
THE ANARCH ROOK

than on republicanism. When watching rooks in the lately sown field, one is inclined to think that theirs is a comradeship of craft. But, whatever their intelligence in other matters, this I am more than ever sure of—they do not set sentinels.
APRIL

The Red Hawk

In flight for song the skylark, flight for wild revelry the lapwing, flight for ravin the windhover, each is matchless. Over the ploughed fields and the rough grass fields that lie on either side of the lonely unfenced road to the downs, one may watch these three any fair, early spring day. Boisterous weather does not suit the windhover best; in a gale he is loth to leave the tree; but moderate wind hinders him little, if at all, in his hover, his spire, and grand upward sweep into the heights. A glorious mastery of the air is this of the hawk’s, the aim and end of all aërial accomplishment. Watching it for a while on a sun-steeped spring day, one may cease to think of it as a triumph over, rather it seems kinship with, the air.

If out of some gross original these master wings have been planed and tapered, this tail fashioned to a fan for flight, this fine body moulded to the very form for air cleavage, how unthinkable the number of steps and the length of the ages that have gone to the making of the red hawk as he is to-day! It struck me that the grey sarsen stones beneath the bird’s haunt, crusted in their plastic time with the
THE RED HAWK

gravel, might be young compared to this perfecting process. Once we take it that the red hawk did not live by a single simple wave of the wand, we can only think in aeons of the time he took to grow perfect.

It is the lofty, aspiring flight of this hawk that is the most glorious. See! now he floats a hundred yards from the earth, even at this height looking down and seeking small prey with the piercing eye. He swings off, mounts again, cutting into the blue, spiring slowly, but with utter ease upward smoothly in wide circles. A party of rooks, also spiring after a fashion, sucked upward perhaps by some eddies in the air, are mingled with him as he mounts through them. One of them insolently flies at and under the hawk and makes as though to strike. Just a careless swerve, nothing like a full stroke, an effort of the wings, and the hawk is far removed from the crass rook, oblivious of its existence. And now he drops level with the tops of the oak trees to vibrate half a minute over the same spot, searching the whole ground about for mouse or cowering bird.

One minute, wings and tail full spread, a-quiver, body, head, wings, and tail all appear on the same plane. He is absolutely level poised. The next his head hangs down, his body drops, and the wings are vibrating at an angle of 45° or more. When the red hawk is poised level his extreme thinness of appearance is remarked. He looks a mere shaving lying flat on the air, fine as the edge of a knife. Piercing, sharpened, pointed—these
THE FAERY YEAR

words carry images which suit well this terrible reiver of the air.

It well may be that the hawk takes the air sometimes for the sheer joy in the flying; his spiring ascents into heights from which he cannot effectually search out prey on the earth give one this idea; and that there is pleasure and health for some birds in flight, apart from courtship and song and food, I am much inclined to believe. But the real end of this amazing mechanism of flight is prey. Remorseless life-taking with violence was never so masked by beauty. The red hawk, in the blue of a spring day, is so refined in material as to seem a spirit; but it is the fell spirit of plunder and bloodshed. This is the pitiable side to so much of the beauty and wonderful design in Nature—one of the desperate riddles of the world.

The Ardent Lapwing

The object of the flights of the lapwings over the ploughed field may be practical, like the hawk's—practical courtship with the lapwing, practical catering with the hawk; but here ornament and display are much more noticeable, together with a sheer ecstasy in living. The fire of lapwing life burns at white heat in April. This is the most sleepless bird in England. On the moonlit marsh, where hundreds of lapwings nest, he is twirling and tumbling and crying all night. On dark nights even
he is wakeful and a-wing. What a contrast between
lapwing and noctule! With the bird, an inconsiderable fraction of the twenty-four hours is for
sleep; with the bat, an inconsiderable fraction for
wakefulness.

Lapwings are always beautiful and showy in
flight. Take the lapwing in winter. A large flock
wavering from field to field, opening out and closing
in; scattering to isolated individuals, gathering into
groups; now seeming likely to split up and act
independently of each other, anon sweeping together
as if moved by some spirit of the flock—this is a
sight I always revelled in. Whether from indecision
or caution, a flock will take many minutes to fly
from one beat to another a few hundred yards dis-
tant, much time being spent in the air before the
birds can make up their minds to alight. A flock
flying against the wind will execute a movement that
reminds one of a sail-boat tacking, and, cutting into
a strong wind, their wings present a singular wavy
line—a like effect being produced in miniature by
the columnar movements of gnats in mazy swarms.
The opening-out and closing-in movements of the
lapwing flock are marked by the regularity of a
regiment of troops. But the soldier has an officer
to give the word of command; the lapwing is
leaderless.

The lapwing twirl and tumble is rarely seen
among the flocked birds. Once or twice in autumn,
after the flock is formed, I have seen a lapwing go
through a part of the spring display, but it has soon
ended. In April it is as if the lapwing could not cease for an hour from his gyrations. When two male birds choose the same part of a field to fly over, many petty duels take place. Now and then there is a spirited encounter on the ground. One bird has scarcely alit and tilted its tail, when it is joined by its rival. The two run at each other, engage in earnest, beaks—no doubt spurs too—going briskly. One or two rushes, and both take to flight again, to engage every few minutes in an aërial encounter of a very slight character. They will pursue and charge each other in the air, and perhaps one swift, light peck with the beak, or maybe with the spur, is given. There is a sound as of brushing wings. An instant later the birds separate and continue their twirls. The lapwing impact in the air is so slight and soon over that one may liken it to what I have called the kiss of the swifts.

In frolic or rivalry swifts may be seen, even in late July and August, screaming and chasing one another in the evening air. Two swifts seem on the point of a collision, but it is always averted at the last moment; the heads of the birds approach so near together that one cannot see space between them. If a touch be given, it must be the swiftest, most delicate. The lapwing's touch in the air is not much more. We have to imagine rather than see it.

In another way the lapwing can cheat the keenest eye. In his tumble, does he really execute a complete somersault? To the naked eye it sometimes
THE ARDENT LAPWING

seems as if the lapwing fell on his back in the air (he certainly does this), but came up again the same way—not a full round. His swiftest flights are when he sweeps just above the ground—and then he can be very swift. Lapwing and rook often seem to labour painfully in flight. Yet both can suddenly put forth tremendous pace. Whether such spurts could be kept up over a long course is what students of migration want to know. I am inclined to believe that labouring and feeble-seeming flight—the land-rail's, for instance—is more likely to deceive a watcher as to the birds' powers than these very high paces.

Cuckoos mate

I heard and saw the first of the summer birds at the end of March—the shy, pretty wryneck, whose plumage has the minute, fine chequered design of the widgeon's or the underside of the wings of some of the smaller fritillary butterflies. Wych elm in flower, coppices whitening with the anemone, and the cumulus aloft and ribes leafing—this is a time when the wryneck well may appear. Indeed, it has been noticed in some years at the beginning of March. At the end of February I thought I heard a wryneck in the woods, but as the note was not repeated, and I could not get a glimpse of the bird, it was not safe to feel sure.
The Love of Birds

It is something of a vogue to call the Anglo-Saxon a Philistine. He lives by beef, not by beauty—he lacks the "artistic temperament," the "atmosphere" of the Latin races. There is a veneer of superficial truth about it. But how is it that the artistic nations, with the eye for beauty and the ear for sound, care so little for beauty in its most exquisite life-form—the small singing-bird? Our summer birds are travelling now to us, and as these fragile warblers pass through South European lands on their way to and from England, they are caught in thousands, and sent to market as food. The old proverb, "A bird in the hand is worth two in the bush," has a sinister sense when applied to the peoples who would esteem a nightingale's tongue from the gourmet's, not the musician's, point of taste.

Among Anglo-Saxons, on the other hand, there is a large public intensely fond of wild birds. It includes people of all classes. During the last year or two I have had many scores of letters from strangers in all parts of England praising, describing, asking about birds, protesting on their behalf. Some of these have been written on ruled paper in baby handwriting, by mites of about six years old—the callow young; others by rough working men, railway toilers, farm hands. Not all these letters are sage. Many do not know the names and habits of the birds, cannot distinguish between the blackbird's and the song thrush's lay, confuse various
THE LOVE OF BIRDS

songs with the nightingale's. Some of the writers are absolutely tied to town life, and only see and hear a few birds in parks and gardens. Some studied birds in their youth, were too preoccupied with business in middle-age to pursue the subject, but wish to return to it in later life. Some would like to begin in old age. I have a letter from Dean Hole for instance—the most winning writer and talker on outdoor life, perhaps because he joined study of Nature with study of human nature—in which he brings a rare enthusiasm to the subject of birds, though over eighty years of age. Indeed for a land of Philistines, England has an extraordinary number of bird-lovers.

England has also many whose feeling for birds is tempered by a wish to get all the good they can out of their garden and farm crops. Watts, some years ago, sketched an angel bending low, full of pity, over a number of slaughtered birds. This picture was reproduced in a magazine for which I was asked to write an article. I am on the side of the angels, with certain reservations. There is little reason, and less use, in reviling the market gardener, the professional cultivator generally, for wishing to protect his crop, which is the livelihood of himself and those who depend on him, from birds. It would be false sentiment to do so—it would be perilously near cant in any one who has to earn his livelihood. What we really need to know is the harm and the good to crops done by birds. There is at present no agreement about this. Everybody
seems talking at once, and each with a different tale to tell. One reviles rooks, a second starlings, a third bullfinches; others acquit rooks, starlings, and bullfinches of crime among the various crops, but want the blood of the jay, the daw, and the crow.

There is one bird at whose name an agreeing chorus of disapproval breaks forth—the most popular bird in England, the most observed, amusing, hated. The bird-lovers are for destroying it, the farmers and gardeners also. It is to-day, as David found it, alone on the housetops. I can think only of one Authority in its favour—St. Matthew x. 29. A great admirer of the house sparrow—which gives delight and amusement to thousands of grown-up people and children—I admit the case against him is black, even taking into account the large amount of leaf-devouring insect life which he takes during the early summer. But only the incurious suppose that the flocks of sparrows at the corn ricks are composed of sparrows only. Four or five other species of birds often help largely to swell these flocks. It has been interesting to me, so early as March, to hear the titter of the bunting amid these flocks, and the agreeable gossip of the linnets. The yellow bunting, too, is attached to oat ricks, as expert as any sparrow in drawing forth the grain.

I think the starling, on the whole, must be beneficial to farming; I suspect the bullfinch among the birds; I am sure of the great good the rook
THE LOVE OF BIRDS

does at certain seasons, but am not so sure how the sum would work out if one were able to subtract exactly the good of one time from the harm of another. As to bullfinches, some dispute their claims to admiration, and urge that the whistling bullfinch is not a wild bird. Well, I have watched and heard bullfinches in a spot where they are abundant for more than thirty years—the most lonely, lovely green lane on this earth. They have a most arresting, plaintive call; they often pair, I am sure, for life. They give a bold dash of black and white, of lovely pink, to the winter scene. Their habit of flying in and out of the hedge just in front of the wayfarer is most attractive—reminding one a little of the dancing flights of the still choicer redbird. Happily the wild bullfinch is a common bird in many districts among great blackthorns and thick straggling hedgerows. Harmful or not, we cannot spare them.

The Manor Farm

Manor Farm has just taken a new lease of life. The barns, their massy woodwork decaying, their great thatched and gabled roofs falling in, had become a serious question. It would mean an outlay of hundreds of pounds to replace these barns by good modern brick and tile buildings, and how was the owner of yesterday to meet such expense tomorrow? What hope to him of getting back this
money in rent? The insurance of these weather, time-wasted barns was serious enough—if only some kindly, accidental spark had removed them, the problem would have been solved! But the change was inevitable—new landlords, new tenants. To-day, no doubt, the land is being treated well enough. I wish, though, they were not cutting down that row of tall poplars in the water meadow.

"The poplars are felled, farewell to the shade
And the whispering sound of the cool colonnade."

Next, at any time, might go those ancient elms at Rookery Farm; or the beeches on the steep hanger; beeches thickening now into a vast sheet of emerald green, fire and copper next October, silver sheen on a frosty winter morning; beeches under which the leaf-drift is four feet deep in places.

It is a sorrow to think of physical change which may disturb serene memories. The disappearance of the beeches of the hanger would be as a landslide. The farm itself has just had its tidying-up for the spring season. There is almost a mathematical precision about the marks of plough, harrow, roller. The long broad strips of green and grey alternating over the rolled grassland delight the eye—never believe that precise, straight lines and regularity in field or garden must be unlovely. You could watch for hours the dressing of the large ploughed fields against the barley or the mangel crop. It looks, in the end, as though it had been raked by hand, if seen at a little distance. For whole delicious March
and early April days the men and lads were at work on the large field with plough, roller, and harrow. Finally the plough is driven round the edges and corners of the field, and the couch is picked off by hand and carried away in baskets.

April Coppices

In days of April heaven, I know no place quite equal to the cuckoo coppices, and no physical craft so good to watch as the hurdler’s. Baths of sun and shower, the pale green of the birch just beginning to mask the nesting haunt of the jay, the gold sweets of the sallow—the emperor butterfly’s sallow—with everywhere bees’ murmur about it—these are a few of the chief items in the great programme of April. Nerve, heart, eye, digestion must all be helped and repaired by the hours spent in the coppices of April when cumulus is packed on the faint blue sky. The cumulus has not the variety of form and grouping that cirrus, the fine-weather cloud of the ice heights, delights us with, the fine threads and wavy lines and wisps; and it has not the mystery of stratus, the cold eve and night shroud; but there is a solid restfulness about its piled-up creamy masses. These are great days of life.

The ground ivy is adding its blue to Gerarde’s dog violet, and the open coppices are near their anemone zenith. But only the open coppices where
sun and air have full play. There is no surer sign of the craving of most plant life for sun and air than the way the primroses blossom thick among the young underwood shoots weeks before they appear in the high wood of four to twelve or fifteen years' growth. In the highest wood they are scarcely out till May; among the one-year-old shoots, which is practically open ground in early spring, they made a brilliant show in very sunny exposures before March was out. The wind cuts hard in such spots before the young underwood shoots have a leaf and there is no undergrowth of wood grasses, but the flowers are not hurt by its cold if they have sun and free air.

The Champion Hurdler

What is the highest number of wattle hurdles a skilful woodman can make in a day? Until lately, I never heard of a man making over a dozen, and only of one who had reached this total. He was the quickest hurdler I ever watched in the wood, and would work a very long day at times—from dawn to dusk. But nice critics of the art of hurdling were inclined to think he was a little too quick for perfect finish. Another woodman, who has worked on the same estate all his life, now claims the record. He can recall a day on which he made sixteen hurdles. Of course, all his rods were cut, split, and stacked up ready for use. He would
THE CHAMPION HURDLER

take three short rests for his victuals in the course of the day, the longest at noon, and, save for these, would never leave the frame. In no other way could a man turn out so many hurdles in a day, even the longest summer one.

Ten hurdles is a day's solid work for a man in the full vigour of life. The woodman who made his sixteen is the last in the world to scamp his work, whether toiling for himself or another. He was the best wattle hurdler in the wood, and, if his work has fallen off in quantity, it is as good as ever in quality. It wants a very practised eye, if one is not actually concerned in the trade, to detect shades of difference in the workmanship of hurdlers. Though bred in a district famed for its hazel and ash wood hurdles, and watching and talking with the woodman at his frame at all seasons, I cannot see much difference between one newly-made hurdle and another. But the shepherd and the farmer—the latter through his pocket—soon learn who supplies them with the best or the worst: wear and tear of use in the storm-swept fields tells—the ill-made hurdle goes to pieces at some weak spot before the wood is brittle.

The best time for hurdle-making is fine, fairly dry weather. A little frost does not hinder the woodman. A sharp frost is very bad for the work. The moisture in the wood freezes, and it is hard to make the hazel rods twist round the two outside uprights; often they snap like dead sticks in the woodman's hands. The rods want pliability during
long droughts. Wet weather tries the woodman in another way. Only the hardiest man can work in drenched clothes, and yet escape the shooting pains and gnawing aches of rheumatism; and even he may pay the common smart of the outdoor worker when old age comes on.

Wood Tonic

But, taking fair days with wet or frosty, what a grand physical life this is the strenuous woodman lives! There is about it the blessed independence which the aristocracy of the working world always and rightly values. Say he works on another man’s lot of wood. He is paid so much a hurdle—fourpence is the usual rate. It is piece-work, a description with a sinister sound in some trades. But much of the best work on the earth is done by the piece.

By stern thrift and industry he can rise a step, buy an acre or two of the standing underwood at autumn sales, and be his own capitalist. A capital of thirty, even twenty, pounds is enough to start on, given skill and endurance in the work. He can cut, bind, and carry home across his shoulder his own fuel; money for rent and food is sure enough so soon as he has piled up in the copse a few dozen good hurdles, for the demand for these is fully equal to the supply in these days.

The hurdler’s is a branch of woodwork which
WOOD TONIC

needs a thorough training. The worker does not begin with the hurdle in the frame. He starts a lad of thirteen or fourteen years with a small bill-hook, and will choose and prepare the wands, which, woven into the ten uprights in the frame, form the hurdle. These are years of apprenticeship. Is it not a perverted view that such a calling as the hurdler's is low on the social scale? It is wrong to regard the woodman as only needing strength and endurance. These help him to succeed, but qualities of head and character count high. He can never rise to be his own employer, or take rank as the best maker of hurdles in the neighbourhood without them. The intelligence brought to bear on such open-air employments is far better than the casual watcher may imagine. These men reason on the strength of years of observation and attention. The best shepherds and woodmen are always intelligent, except to the impatient or incurious observer of character. The machinery of mind moves with them slowly, but it is sure. Apart from the qualities needed for such occupations, the life itself is far superior, in health and beauty of scene, to many "genteel" callings of the town. We say this—it is almost commonplace—and feel it, and yet the trend is all the other way.

The Redbreast's Eggs

This spring I have found a redbreast's nest with an extraordinary set of eggs. I watched the female
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redbreast building. The male bird did not aid, I think, after the site was chosen—a shelf of an outhouse in the midst of some sacking. The first two eggs laid by this robin were of the usual type, speckled thick with minute brown marks. On the third morning I found in the nest an egg utterly unlike a robin's. The ground colour, a pale lilac wash, reminding one of the ground colour of some chaffinch's or linnet's eggs. At the larger end chiefly were spots and specks of thin red-brown and lilac. Was it the trick of some bird-nesting boy who had removed the third redbreast egg and substituted one of an early greenfinch or linnet? It seemed this could not be a redbreast's egg. But on the fourth and fifth mornings I looked again, and found two more eggs of quite a different type from the first two, more boldly and sparsely spotted, but undoubtedly redbreast eggs. No one, after all, had tampered with this nest. Here were three distinct varieties of redbreast eggs laid, I cannot doubt, by the same bird. To see the beauty of a redbreast's egg, one must hold it up to the light when it is quite fresh. The shell of a bird's egg, especially redbreast or grasshopper warbler, without the fresh yoke inside, has lost most of its loveliness.

Anthem of the Willow Wrens

The April anthem of the willow wrens is an exquisite incident of English bird life. On both sides
ANTHEM OF THE WILLOW WRENS

of a road through birches and larches just greening, I found many willow wrens challenging, following up each other’s songs. The effect is quite peculiar in such bird choirs. There is something in it that reminds one of a rhyme, there is something like a chime—the rhyming and chiming of the willow wrens. There is interruption, several birds singing the same passage at the same moment, but it never becomes inharmonious. Quite different is the bird-babel, heard sometimes on a March or April evening about sundown, in which blackbirds, many thrushes, redbreasts and ringdoves, seem all to be hurrying out song in rivalry—the result a medley of spoilt music. The choicest passages of each species and individual are blurred and confused; it is impossible to listen to and enjoy fully any one bird. If the general effect is not actual discord, it is failure from a listener’s point of view.

Now, in the anthem of the willow wrens there is not a discordant note. Anthem, the hymn of public worship—is it far-fetched to use the word of the choir of these charming little birds of the birch woods? One need not force the imagination to think they are pouring out their very souls in joyous homage on a kind April morning.

These are willow wrens that have not yet paired or chosen their bit of ground for the spring and summer. They have but lately recovered from the fatigue of their journey through the sky deeps, and are busy feeding amid the tree twigs and bushes. In a few days they spread out over the country, and
then we do not hear again the anthem, only scattered solos here and there. The strength of some of the singers in one of these April anthems is striking: the whole lay is not always developed at the first arrival of the bird, but certain notes seem more ringing now than later in the season, when each bird is sure of his full song.

The song of the willow wren has always made strong appeal to me. It is partly through association—even to think of him is to feel the first sappy coppice days, when the red-ringed oaks are going down before the saw, and the sound and aroma of bark-stripping are in the air. But the song is good, too, for its own sake. It has a distinctive quality of meekness and weakness, so perhaps necessarily is tinged with pathos. It is the same in the song-flutter of the tree pipit, another bird of passage which came in with the willow wrens, and is settling in its summer haunts—a favourite spot being the railway embankment facing south. Yet the willow wren's and the tree pipit's songs are no threnodies. It is the joy akin with sadness, the sadness akin with joy, that we feel through and through us in the willow wren's song. It is with English scenery as with English bird-song. As Ruskin puts it: "What is most musical will always be found most melancholy; and no real beauty can be obtained without a touch of sadness. Whenever the beautiful loses its melancholy, it degenerates into prettiness." The same union appeals to us in the song of the redbreast, though here the pathetic
ANTHEM OF THE WILLOW WRENS

element decidedly prevails. The redbreast is the most pathetic singer among English birds. This is the effect on the hearer; of course, one cannot infer that the redbreasts, pipits, or willow wrens are sad—on the contrary, probably their songs are songs purely of pride and pleasure.

The redbreast song is notable for its drawn-out strain of pathos—the lark for rhapsody—the wind thrush for revelry—the song thrush for painstaking, deliberate phrasing—the blackbird for a certain insouciance, mellow perfection—the wren for merriment—the blackcap for wild waywardness, romance—the chaffinch, I was going to say for commonplace; only if he is commonplace, give it me in abundance in June.

But for the deep sustained note of passion we look to the nightingale and the ringdove. Of the two, I incline to think the ringdove’s is the intenser. Few sights, by the way, are prettier at this time of year than that of the ringdoves’ billing. They will straddle along a branch and bow for ten minutes at a stretch, and give swift, soft pecks at each other’s necks and heads, a flirtation of feathers which one can now see well before the leaf grants the lovers a shelter.

An Intimate of the Soil

The “farmers’ ordinary” on market-day at the George or the Lion is for the more considerable men. There you look for strapping, rubicund men,
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beefy, some of them, as their cattle in the pen. To study this type one should roam the great square, say, at Norwich, and enter one of the inns there on a great cattle day. Midland towns in a grazing country show the same samples. But beneath this grade, in dress and style of life, there is a large body of small, general farmers whose little but hard bargains are driven in the open of the small, sleepy market of the corn-growing, sheep-breeding districts, where the old-fashioned rotation of crops remains a great feature. It is a refreshing, invigorating experience, now, in the time of the blackthorn winter, to travel home with two or three of these working-men farmers, who wear the collar of civilization, but only on Sunday reach the necktie. Their original knowledge of this field and that on the way, their keen argument as to charlock and couch, and the time for sowing corn to the best advantage—this is talk I hearken to with downright reverence.

My old friend, and constant shooting companion at one time, who has lately left the Manor Farm, and with it farming, was one of these authorities. No wonder. He put by something, I do believe, in the leanest of all years, when wheat was under a sovereign a quarter. He might have ended by buying the Manor Farm himself, instead of going soon after the land changed hands. But though the wrench was cruel, he and the missus retired when their lease ended, and are living happily in a little house at the edge of the land.
AN INTIMATE OF THE SOIL

they loved and knew so well. This man was an intimate of the soil. He was admitted by all labourers—shrewd judges often—farmers, and gentry to be a first-class farmer. His horses would not have taken prizes at a show; one never heard it said, or personally noticed, that he fed the land with special generosity, though he certainly did not starve it. But he made a livelihood by farming, put by without boasting a tidy sum against old age, and saw his sons well placed in the world. These men are the workaday patriots. They, without knowing it, make and keep a nation great.

He was just one of his own farm hands. It would have been hard for a stranger to tell master from man in the harvest field. A man of all work, he would plough, sow, mow. He has lived a rare life of toil; was of the kind who will sometimes begin with a lantern in the winter morning, and end with one at night. His wife minded the poultry and made the butter—and the butter did not vary much in quality. Theirs has been a long and trusty working partnership.

I never could get much natural history out of this man, though I find from notes in an old diary that he knew where the stone curlews laid their eggs, and the time to expect the return of the birds. His only relaxation was "a bit of shooting," and once a week in the season he would somehow, perhaps by working earlier in the morning or later in the evening—or making somebody else work
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harder—squeeze in a few hours with the gun. He went on working, however, years after his legs declined to take him shooting.

Nature's Professional Sybarite

When Nature has got all she needs from plant, bird, beast, or insect, she ends it. This is the rule. No long, wretched dragging-out of a used-up, lack-lustre life. But the expelled drones of the bee-hives are an exception. Many more drones escape the onslaught of the worker bees at the end of summer than is commonly supposed. I know of a dining-room with large windows facing west, near several hives; and for weeks after the expulsion, numbers of the drones crawl up and tumble down the glass windows with impotent buzz. They die by inches. Some survive far into the autumn. I have seen them alive in November. But this year, for the first time, I found a live drone indoors in March. It had dragged its crippled, profitless life through the winter—had hibernated like many insects; only, unlike these insects, to no conceivable purpose.

Now the worker bee, separated from her kind, imprisoned in a building, however warm and sheltered, and supplied with choice food, may scarcely live longer than a few days. Yet her life is of value to Nature; whereas the expelled drone's life is useless. Why, then, this ridiculous,
NATURE'S PROFESSIONAL SYBARITE

unpleasant extension of it? Better, surely, for the drone to die out speedily after the expulsion, and for its substance to be used up for other purposes. I suppose this extraordinary vitality in the drone might be argued as proof of the pains Nature takes to make the drones very strong and vigorous. Maeterlinck would have us believe that the strongest of all is chosen by a process of natural selection by the queen in her high bridal flight. I cannot take this so seriously. Accident probably selects her mate. Still the drone's vitality is very remarkable. Is it because he lolls away luxurious days on the golden scented combs, battenning on choicest fare, the professional sybarite of the hive?
MAY

A May Night's Star Pageant

WHAT a change has come upon the face of the spring night sky within these last few weeks! You have some favourite window, porch, or other coign of vantage from which just before the evening meal, or at bedtime, you look round and up and take measure of the night and its promise. The house that stands high, open to the south and south-west above its woods or park lands, is the best observatory for this purpose. Nobody would choose to look north or north-east for long in early spring when after dusk the star host is well on the march. Through March and the early days of April, eve after eve, night after night, we looked on sky scenes of immense lustre. Orion, with that glittering Sirius at his heels, bestrode the heavens to the south-west just before dark, absolutely dominating all; whilst, a little earlier, there were those marvellous fiord depths and heights and breadths of blue gemmed by Venus and Jupiter; and, one evening at least, shy Mercury in the saffron of sundown.

One looks up now to find all this eve and night phase past. Venus's torch is out before dark, and
A MAY NIGHT'S STAR PAGEANT

with it Jupiter's. The heroic figure of Orion is going fast, the most tremendous thing human eyes have looked up at since the angel came clothed with a cloud, the rainbow his crown, and his face like the sun's. When last I noticed Orion before full night, he was sunk to the sword belt, and now he is almost out of sight at dark, whilst Sirius is on the very edge of the horizon less than half an hour after sunset. Clustered Pleiades, straggling Aries, and the mighty square of Pegasus, those glittering star groups which we have watched so often during months past, have disappeared too, as the days have lengthened, and now after sundown we look to the south and east on a very different array.

The pageant of to-night, even with the Great Bear hanging right above, one pointer of his pointing eternally the Pole Star, another Arcturus, is not so sublime as that we watched a few weeks ago. The serpentine length of Hydra is uncoiled across the sky, carrying with it the two distinct, clear-cut little constellations—mighty, unconnected universes perhaps—the Cup and the Crow. These can show nothing comparable with Orion and his retinue. Nor can the Virgin who follows, though her chief gem is of an intense and lovely blue, nor high Herdsman, nor vague form of Hercules following Serpent and Crown. But before ten o'clock there comes up from the east the most brilliant orb for a late April and May sky, Mars, yellow tinged with just a fancy of red. This is the beautiful
planet which now fills the place of Venus, and, rising in the evening, is still as a morning star in May.

The Kindling Beech

Those who often look on the beeches massed on some hanger or clumped about the hill-tops know well the three distinct phases in the early summer, autumn, and mid-winter life of the tree. First, the emerald green of later May; second, the flame of October and November; and third, the ice sheen of December and January. But there is a fourth phase of the beech tree's, less striking, but of subtler beauty, than any of the others. The first three familiar states of the beech are lavish in colour and pomp. The fourth, which we enjoy at the end of April and the beginning of May, is hardly to be seen at the first glance. The full pleasure to the observer scarcely comes till he has looked at the beeches close and long; then it is a sure reward. At first, when the buds begin to swell and thicken in April, the trees merely seem, at a short distance, closer and finer in their lacework of twigs.

But presently we notice that the whole tree is aflush at the tips. We fancy we catch a rosy tint, but the impression which the beech tree makes at this season is not so much one of colour as of the indescribable kindling of new life. It is the fire of spring, full of undertone, subtle effect, rather than of the biting or flaming hues of the fall of the year.
THE KINDLING BEECH

If a name can be given to the beech tree at this time before the emerald green is really beginning, flesh colour is as good as any. There is, however, colour clear enough if we come right up to the tree. Each swelling bud is scaled in gold and amber, with a stain of unmistakable rose in one part, and the tip showing an immature green. What is the cause of this small dab of bright rose on the unfolding bud of the beech? It is, I think, quite invariable.

The kindling effect of new life at this season is not seen on the beech tree alone. It is noticeable about every wood and spinney, where the green has not yet prevailed. Some of the choicest of spring landscapes are where the coppices are partly kindling with their oaks, beeches, and more backward trees and underwoods, and partly touched by the mist of birch and larch green. Where in the background, raised high above these woods, and heavy against the horizon, there is a sloping, dark band of pines, the effect is magnificent. Such landscapes are often seen in sandy, heathery districts where pine and birch trees grow in abundance.

Of lowlier things in hedgerow and wood, the second set of spring flowers is beginning to make some show. The hedge garlic, which a humble generation of villagers used for its salads and sauces, has begun to blossom, and patches of the greater stitchwort are almost in full bloom. The lady's smock is beginning—on May 11 last year I saw long sheets of its pale lilac in a spinney, the flowers so extraordinarily thick in places that they quite
hid the ground. Wild chervil, too, is beginning to blossom, a despised wild flower on the whole, yet with an almost evergreen leaf as delicate in tracery as that of lady fern or maidenhair.

Animals and Morality

We hear a good deal about the kindness of various animals to each other. Adult birds of one species will feed and tend the young of another, even in a wild state. Young cuckoos may be fed by other birds than those that have hatched them. But here a special instinct dominates—that of the nesting, brooding bird. Even these cases are not, I imagine, very common. But of "kindness," in the ordinary sense in which we use it of human relations, there are surely very few authentic instances among the lower animals. The sexual and parental instincts are often beautiful and usually very strong, though short-lived. But charity, mercy, pity, self-sacrifice—do these really exist in the known animal universe outside man?

Two things filled Kant with astonishment—"the starry hosts above and the moral law within." Can it be seriously held there is anything in the nature of a "moral law" among lower animals? I have never been able to see a sign of it, whilst watching animals of many species with sympathy and admiration. Courtesies between the sexes, particularly among birds, exquisite as those among human
ANIMALS AND MORALITY

beings, we do see; affection of parents for their helpless young which may put to shame some human beings; comradeship in winter months and at other times of year. But, not even setting aside such associations as that of the hive bee, what proof is there of disinterested, humane action, of moral intelligence, among wild creatures? Gordon Cumming tells about the rage of an elephant, whose "friend" he had shot, but there is no proof that the motives were those of what we term friendship. I mention elephants, because they are commonly quoted as possessing the highest type of intelligence in the brute creation—though Baker greatly disputed this view.

I believe that the wild English animals which I watch are, taking the human view and standard, simply a moral. The line of cleavage between man and the lower animals in this matter seems to be absolute. As to "kindness" among animals, apart from sexual or parental relation, it would be extremely interesting to have a record of authentic cases. Personally, I have never seen any incident answering to what we call "kindness" in human relations, though one or two cases of the kind have been mentioned to me. Knapp clearly believed in animal kindnesses or humanity, and gave one delightful account of bird help. He noticed one summer two song thrushes frequenting the shrubs on the green in his garden. From the slenderness of their forms, and the freshness of their plumage, he believed these were birds of the preceding summer.
“There was an association and friendship between them that called our attention to their actions: one of them seemed ailing or feeble from some bodily accident; for though it hopped about, yet it appeared unable to obtain sufficiency of food; its companion, an active, sprightly bird, would frequently bring it worms or bruised snails, when they mutually partook of the banquet; and the ailing bird would wait patiently, understand the actions, expect the assistance of the other and advance from his asylum upon its approach.” This was continued for some days, but after a time the naturalist missed the fostered bird, which he thought may have died, or, by reason of its weakness, met with some fatal accident. Young song thrushes of the first brood in the season will help their parents to rear those of the second brood. This may have been the explanation of what Knapp saw.

On the Sea Steep

It is in the sense of spaciousness well within grasp of the thought and the eye that the steep by the sea yields more to us than any other place. There are spots in plenty on the English chalk downs and heathery heights which command far greater distances. They show spire beyond spire in the elms, oak wood above oak wood, landscape on landscape in bird’s-eye and miniature, the bloom of purple wearing off in the end to a film of grey.
ON THE SEA STEEP

But on the steep there is no distance in little, no compression of multitudinous farm, cottage, and tree into tiny spaces, dolls’-houses of the eye. Here the sight never need strain to catch the utmost rim. It takes in all with such an easy span—the long, clean, uninterrupted horizon—the vast, open space of the sea. There is nothing to cramp the eye or mind. "Feel my soul becoming vast like you," wrote Arnold of the sea, and this finely expresses the emotion which the English seascape in perfect May weather wakes in those who lie on the steep under the spiring larks.

The crumbling cliffs and chines are glorious with the hot-scented blossom of gorse now nearing its prime, and among these bushes and the ling the nesting stonechats flit, like some large day-flying moths, in the sun. The cluster pines line the edge of the cliff, where they are rocked to the roots by the sea breezes and twisted into uncouth forms, although so thriving. Among them the blackbirds flute all day.

Every group of trees and brake has its blackbird, and here by the shore there is no sound but that of wind and water to break in upon the blackbird’s lay. Browning writes of the wise thrush that sings his songs thrice over lest he should fail "to recapture the first fine careless rapture." Perhaps he was thinking of the familiar three-note repetition of the song thrush; the "peebur, peebur, peebur" (always three "peeburs"—but why three?), or the "pretty-bird, pretty-bird, pretty-bird"—both after
weeks of practice, as clear and fine now as they can ever be. But in any case "careless rapture" is never characteristic of the song thrush lay—rather the song appeals to one as the outcome of study and deliberation.

The song thrush is a "word-mosaic artificer" among the bird poets. A blackbird at his best sings as if he does not know what was coming next—come what may, it is sure to be of the choicest. He sings his songs too—as for the matter of this does the thrush—thirty times over. No musician, then, disputes the cluster pines with the blackbird. But the willow wren here adds his tribute, humble as the widow's mite.

If we creep under his bough and watch and listen within a yard or two—and it is easy enough to get within all but a longing touch of the willow wren in May—we find that really the lay is astonishingly loud for such a minute creature. His spindle legs are scarcely thicker than those which bear a butterfly. He glances down with a quick bright eye, is reassured by the stillness and innocent carriage of the watcher, and, a yard away, breaks into song again, beak wide open, throat distended, whole body a-thrill. If I had the art and time of the bird-charmer, I should wish to have the willow wren singing whilst sitting on my little finger—a coarse perch, though, for those frail, tinted legs.
THE MAY SKY

The May Sky

Why do people go abroad who seek noble seascape, alight with every conceivable shade of blue, grey, and green, presented in stripe and layer, never two quite alike whilst there is azure and cloud mingled? They do not go for this at all, it is clear enough, but for something quite different. If a watcher of English seascape, before going to Norwegian fiord or Italian lake, waits till he has half exhausted, say, the North Sea, the Solent, or the Atlantic off the west of Ireland, he never starts. This is the simple truth. I have watched the Solent for more than a quarter of a century, and despair of growing familiar with its amazing variety of water, sky, and coast scene. Each day—each hour in that day—some new effect. The best scenes of all seemed in September—the best scenes of all seem in May.

Set aside the deep human interest of this English sea, the national emotion which the commerce of Southampton Water and the thunders of Spithead stir—one still has a summer scene of perpetual enchantment. The May sky with its clouds is God’s palette, the deep His canvas. Not two pictures on that canvas in colour and form together exactly the same of the millions that are painted there in summer! Blue sky, white and grey cloud, green water; by the union of these large, simple colours a diversity of hue and effect is secured which is the despair of the most cunning
hand in pigment. Lavender, cobalt, indigo, and lapis lazuli on which a fastidious painter may spend money lavishly to get the real natural product fine ground and prepared for his brush—here they are in perfection and profusion. And there is something here which, however fine his pigment and skill, must remain his despair—the dead straight line.

That gloriously long horizon of the sea may not be dead straight; rather, curved slightly to the eye; but it is absolutely severe in the clear air, ruled out deep and strict. The scarcely shorter line of the low coast, however, seen a few miles off from the water, is to the eye dead-straight, bitten-out. Yet, because the hard straight line in art is a failure, some believe that in Nature it is never seen. In truth, few things are more familiar than the distant lines which in Nature are ruled clear and straight to the eye. Solent perspective is full of such effects, often of arresting beauty. Not only are sky-lines and coast-lines ruled straight, but often the stripes and shades of the sea. For hours and days together there is no softening away of the straight line. It is only when the heat or rain mist creeps over the horizon or the low coast that the keenness and strictness of the line is whitened out. The characteristic colour and form effects of the Solent are, no doubt, those of refined delicacy. It is not ordinarily a masculine sea. But when the blue of the May sky is wholly blotted with formless sullen cloud, a kind of confused cross between stratus and the snow-capt
THE MAY SKY

cumulus, the sea takes on a sombre, solid look, grand rather than light and beautiful. In spring we rarely find this true sea of the English enervating in beauty for many days together.

Rookeries of Romance

On rooks a lady has written denying my statement that these birds are highly suspicious and wary of man. She relates how she has induced rooks to come down close to the house to be fed. I doubt not they might even be persuaded to come indoors and take food at table. But I was speaking of the wild rook, not the tamed bird. The rook, my critic says, has a brain-power superior to that of many other birds. Little doubt the crow family has an acuter intelligence than most English birds. This suggests an interesting question—do the most intelligent wild animals show a closer approach than the others to our "moral law within"?

We know the theory of some natural selectionists that the morality of man has been evolved out of the social or gregarious instinct. Now, the rook is one of the most sociable of animals. If this view of the origin of morality were correct, might we not expect rooks to show toward each other qualities of mercy, kindness, pity, and help more than wild animals of solitary habit? But I doubt much whether rook is juster or kinder to rook than thrush to thrush. True, the real life of the rook is dark to
us. We can barely translate a word in his difficult tongue. But, so far as I have noticed, each rook is for himself—out of the courting and nesting season that is—as is each thrush. As fact, rook to rook is often a robber, and I protest against the theory that a rook that robs a neighbour, or breaks the rule of the rookery, is hauled before the black justices of the peace and punished. We might as well believe in Radical and Tory rooks, rooks in business, and rooks living on private means.

The Aura of May

The forest is leading up to its ferny perfection. We cannot think of it without onsets of enthusiasm. Each May day, in delicious weather like this, spent apart from those lawns, oak dingles, high-set, breeze-laden commons ashine with God's gold, the gorse, seems frittered. Setting out for the forest from one of the villages that lie around and encroach upon it, we have an absorbing wish to get free of the sight and sound of the last red-brick villa; the feeling is like a thirst in the burning summer. It seems as if we never could reach the true loneliness of the forest, its Ultima Thule. At last we cross the sopy moor, and hide in the secret oak woods. The summer is coming with a burst of life, huge energy, heightening colour, strong scent everywhere. The bogs are greening. They are dusky red too with the dwarf willow, whose pollen makes subtle
THE AURA OF MAY

contribution to the aura of the May day. But these are the first days in the season, when, under the oaks, or on the sandy banks where the foxgloves, countless thousands of them, are beginning to leaf strongly, we can lie on the open ground, without the slightest fear of taking cold, and steep ourselves in the glory of it all. We feel we must enjoy to the full a few hours thus before setting to work to make anything like a close and curious inventory of Nature. We are as one who has just come into an immense property. First of all, we must revel in the astonishing joy of it—later, take careful stock of our possessions in detail.

Trapping the Bird Traveller

During the last few days the bird population of England has been greatly increased—it may have been doubled. Swallows, swifts, martins—house and sand—blackcaps, garden warblers, wood wrens, and turtle-doves have come crowding in, hundreds of thousands of them. Less than a fortnight ago, most of these species were but thinly sprinkled through the country. A week of May goodness has made the difference. Blackcaps abound where they were scarce ten days ago. Early May was almost swallowless. There are not even now half enough swallows. But it is no longer weather which holds them back. I fear that the swallow grows scarcer as an English bird, possibly through the way in which it is netted
and killed in Southern Europe during its travels. Killing or catching a bird on its travels is monstrous. It is returning, after months of absence, to the field, copse, or garden where it lived last summer; it may be returning to meet and mate once more with its companion of last summer and the summer before. Or it is returning to the spot where it was born and bred. The beautiful instinct of home, and that sense of direction which we can only imagine, never account for scientifically, direct it.

There is nothing too sentimental, too figurative, in saying that the finger of the Most High points the long, hard way to these tiny travellers at great altitudes. Nobody who has properly considered this wonder could desire to strike down the wanderer before it reached its goal. Killing or prisoning a small bird on its travels is a very refinement of cruelty. I remember reading a most pathetic description by an Oxfordshire or Gloucestershire naturalist of how, as a collector, he had once, with a catapult, broken the spindle leg of a willow wren. The bird flew a short distance and burst into song again. Then the collector, horrified, crept nearer (he wrote that he "felt like a murderer"), and put it out of its misery. He said that he never collected any more. That willow wren was too much for him. But trapping and destroying tired bird travellers is worse—it is taking them at such a mean disadvantage.

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THE BIRD PROGRAMME

Distributing the Travellers

Turtle-doves at this season—they are among the latest to arrive, as a rule, though last year I found them home before the end of April—travel often by day in small parties of under half a dozen. I watched a party of three or four coming in straight from the sea one May day. They seem to have no doubt about the right way, and fly with straight decision, a hundred yards or so from the ground, at thirty or forty miles an hour. Many of the smaller species of migrating birds probably drop from copse to copse, feeding and resting on their way, till they reach their chosen quarters.

The habit of birds of passage to return to their last year's haunts is clearly valuable both to birds and men. We want the insect-eaters well distributed. If the birds flooded into England in April and May without a programme for the season, they would not get well distributed. There would be too many here, not enough there. The stronger or higher-spirited—it is high spirit, I think, that tells most in bird struggles—would drive off their rivals, but this would take time and even spoil the nesting season for many. As it is, there is keen competition, but birds which have already stayed and nested a summer or two in a certain haunt tend to settle there a third or fourth time, and this is a good basis for a speedy and equitable distribution of the travellers all over the land each year. Many have a definite programme, and this will help those who have not one
to settle the quicker in their nesting haunts. The bird with the programme has the stronger claim—depend upon it, he is, therefore, the higher-spirited as a rule. His rival goes on and settles in some other spot.

Apple Blossom and Honey-flow

The honey-flow is upon some of us before we have found time in these packed hours of life to put our sections over the crowded bar-frames of the hive. There is not a great deal to be done in a very small bee-garden, but the little there is should not be neglected in early May. Last year I put my sections on one hive too soon, in April, without examining the interior. I paid a full penalty. A strange listlessness marked the bees in this hive after the old queen had left one morning with a swarm. Her wings had not been clipped—she flew far afield with her retinue, and was lost to us. The listlessness of the bees that remained we attributed to the weakening of the hive by this swarm.

For a whole month in the summer I had to leave my bees. On my return I took off the sections and found too late where the weakness of that hive lay. The wax moth was there in overwhelming strength. It had driven its vile tunnels through the beautiful yellow combs, spun its webs everywhere. Bees in health are lovely in cleanliness. Their system of sanitation is fragrancy itself. The nectar in the
APPLE BLOSSOM AND HONEY-FLOW

beecombe is as undefiled as the nectar in the flower-gland. But the grub of the wax moth defiles every comb it touches. So I had to make a bonfire and burn every ruined bar-frame and comb, and with these the wretched remnant of the bees—nothing could save them—it was the merciful way. To miss the first week or ten days of the honey-flow, the perfect days of the pink-white apple blossom, is not so bad as to let the wax moth get hold of a weakened hive—I doubt whether it prevails over a strong one—but it is a waste of pounds of food in the most delicious form food can take. Besides, it may result in a premature swarm, which will lessen the yield just when honey should be coming in freely.

The Phizzling Ant-hill

The hills of the black ants among the pines, or on the heather heath where the slow-worms and green lizards lie out in the sun, are scenes of feverish activity in May. The noise made by the dense population of a hill three feet high and three times as many round is remarkable. The ant-hill phizzes. Is it cosmos in chaos, or chaos in cosmos? Push off the peak of the ant-hill with your stick—up which a dozen ants will be climbing instantly—the phizzling, if anything, is increased, feverishness added to feverishness.

Each ant seems to jerk its way more jerkily than ever. Pandemonium reigns—to our eyes.
Confusion piled on confusion. The bee cluster is sedateness compared with this scene. True, an ant in difficulty, trying to drag a burden of twig absurdly out of proportion to its own weight and size up the moving hill, is instantly aided by other ants. Here is no need of "antennal language." The burden is shoved, dragged, hoisted with a kind of exasperation of energy, over all obstacles—including struggling ants beneath, around—and off jerk the aiding hither, thither, anywhere, to seize something else. The ant is often held up to us by moralists. We are advised to copy him. But to copy the ant would be to lead a life of helter-skelter. What, no doubt, is highly effective on the ant-hill would be misdirected energy among human beings. We may not see right, perhaps we only see the very superficies of things in the ant world, but it does look as if these great mounds were piled up by intense, uneconomized physical endeavour rather than by scientific method. As to this "antennal language"—shall we ever translate it into human speech, or must it ever be an undeciphered page in the book of knowledge? Nobody who has watched the ant on the mound or the bee on the alighting board can doubt that communication is effected through the antennae. It is the language of touch.

Anodyne of Dawn

What a strange and enchanted land it is we see through the window in the slatey dawn of a May
ANODYNE OF DAWN

day! The birds are scarcely awake, or for some reason they do not sing this morning. Nothing breaks the brooding quiet of an unpeopled world. We cannot see the May earth in its full value from a window, and there is some conspiracy of civilization to prevent us steeping ourselves in the real thing in the open air. It is formidable to creep down like a housebreaker, every stair creaking loudly, to unbolt obstinate doors. But even the meagre glimpse we get of the steel grey of the May morning through the window is anodyne. It is the utter stillness on the sombre face of Nature that appeals to us in these undarkening minutes of the day.

There succeeds an entirely different scene. The hubbub of the birds fairly begins. The world awakes, and is thickly inhabited once more. But it is the feeling of freshness that is now so strong. Each May morning the earth is created. The stock of freshness and elate youth from which Nature draws without stint in this last fortnight of May and the first fortnight of June is inexhaustible.

A Willow Wren's Nest

To find birds' nests in wild, thick places, it is better to watch the builders than search the bushes and undergrowth. There is something unmistakable in the behaviour of small birds when nests are a-building. You may at other times see a bird fly
often to a certain spot, such a thicket as it builds in, and yet you know from its movements that it has not a nest there. Its object is food or water. Lying on the bank that slopes to a narrow swamp, I saw a pair of yellow-hammers repeatedly fly to and fro between the hedge and a sallow having plenty of undergrowth. But, as I expected, no nest was here. The birds visited it for food or to quench their thirst on the hot May afternoon. A dozen yards away, a small bird flew twice from a gorse thicket to some bunches of dwarf willow at the edge of the swamp. It was so intent and so agile that, catching a flash of what looked a grey-white breast, I took it for a lesser whitethroat, the bonniest of all the English warblers in movement. But, looking closer, I found a willow wren, which ordinarily has little of the lesser whitethroat's darting, flickering, restless action.

The willow wren was building in the dwarf osiers, which were naked save for their pollen-dusted red tips. But at first I overlooked the little hump of moss set on the bare ground among the stems. The nest faces north, the ground is wet enough now—if June should be rainy, the young birds will hardly survive, for the whole lower part of the nest must be water-logged. Around are dry grassy spots in the bank where the bird might have built. Yet she prefers this unpromising site. She may have chosen with wisdom, but it is not manifest. This willow wren is rather a shyer builder than I hoped, considering
A WILLOW WREN'S NEST

the bird is easy to approach when it is feeding or singing. She cried out two or three times on seeing me, and down came her mate in haste. But the building was soon resumed. The moss roof, thatched less closely and firmly than the common wren's, was on; the interior was being lined with dead grasses, fine and pliable; and, fearlessly now, the builder went into the nest.

But exactly how she works I cannot tell. The entrance faced towards the swamp away from me. I have once been within a very few feet of a long-tailed titmouse working at her nest, have seen the whole process, but then the roof was not on; the bird sat inside and piled and patched up the sides. Once the roof is on a willow wren's or a long-tailed titmouse's nest, and the bird inside in the dark, you cannot tell how the work is carried out, for you cannot be in the nest with her. But, carrying a couple of grasses, she will stay inside for a minute and more; there is more work in a willow wren's nest than appears on the surface; it is a loose fabric when done, compared with the common wren's; none of the three "leaf warblers" knits firmly, though I have once seen a chiff-chaff's nest of almost perfect form and workmanship; but the nest holds together, and well serves its purpose.

The male willow wren took no part in the work. He sang and fed in the oaks within easy call, and clearly he was ready to come at the slightest alarm. This, I think, is a common habit among English birds. But very different is it with the long-tailed
titmouse and the common wren. The cock birds of both species build—the cock wren, as we know, often making a beautiful nest without the aid of a hen. I was describing in my chronicle of March a cock wren nest. Complete, save for a few touches and perfunctory feathers, the nest was left when dark, wet weather set in. It grew sodden. I saw and heard no more of the builder, a solitary cock wren, and believed that, like other nests of the kind I found, it would never be used. But, on May 16, I found that the finishing touches had been added. The entrance had been smoothed and knit to wren perfection—a wonderful perfection it is, and would be the despair of the deftest fingers, even those painfully laborious ones of the Indian—the moss casket held six warm treasures. The hen bird now sits hard.

Therefore, this cock wren had built a nest, with gay ditties as he worked. By-and-by he brought a mate to it. I should have liked to witness his discovery of it to her. It reminds one of Wemmick and his bride—"Hullo, here's a church, let's go in. Hullo, here's a clergyman, let's get married."

Why Butterfly and Sun?

Why does a butterfly care for the sun? We are so familiar with the association of butterfly and sunshine that we do not think about the cause; yet it is not very obvious. The moth—"mollard" some
WHY BUTTERFLY AND SUN?

villagers still name it—prefers sunlessness; though there are exceptions; take the burnet, cinnabar, humming-bird hawk moth, and gamma, which fly in sun. Mother Shipton, the little patterned moth, which I noticed the other day in a swamp in the forest, is also a day-flyer. But the difference, if it exists, in the constitution of moths that fly in the sun and moths that sleep in the sun, has not been stated. The coma of some butterflies on a sunless summer day is, I believe, identical with the coma of the night-flying moth during the day. Hibernation, save in name, probably covers the whole coma state in all animals. The common blue butterfly is so overcome by rough weather that we can pick it off the flowering grass head to which it anchors itself. Many other butterflies are quite as drowsy. Intense cold sends a man to sleep, the fatal merciful sleep from which there is no awaking. Thus, perhaps, some of the ice-bound mariners of Franklin and, long before Franklin, of brave Willoughby ended. A butterfly can live through intenser cold than a man. Yet, in even slight cold, it cannot live its full life as a man can.

The sun goes behind a heavy bank of cloud, the thermometer falls a very little for a short time—the butterfly which, out-of-doors, safely slept through the hardest winter, only half lives. It is numbed, powerless to escape a foe from whom, five minutes before, it soared with lively sense of danger. The sun comes out again, the butterfly is instantly itself, alert to see and shun a foe, burning to battle with a
rival—for, make no mistake, butterflies can battle—revelling in the warmth of the air, the nectar of the flower. All we know is that Nature, for some hidden reason, whilst fortifying the butterfly against the siege of cold, has arranged that it shall only live its full life in the sunlight.

With butterflies, as with moths, there are exceptions to the general rule. The little blue, which has been flying about during the past fortnight in seemingly aimless way, is the azure or holly blue butterfly, not the common blue butterfly of full summer. Its flights are further afield than those of the common blue. It flies erratically over bushes and trees, where the common blue travels rather from flower to flower or grass head to grass head in the meadow. This azure blue, like other butterflies, is evidently a sun worshipper. But I have seen it quite alert, moving over and nicely examining a leaf, or flying strongly during sunless hours late in April or early in May. This holly blue, not the orange tip, is the first butterfly to hatch from the chrysalis in spring. It is possible that a few large white or cabbage white butterflies hatch out as early as or earlier than the azure blue; but I doubt it, for I believe that both those butterflies hibernate in England, which may account for the very early specimens.
THE ONRUSH OF SUMMER

Oaks of Sway

A short break in the spell of an extraordinarily benign May would bring compensations. The onrush of summer things is, perhaps, too great this year. Cold or dark weather breaking such a spell does help to spread out the bounty of the season. As it is, gorse has hardly spent its prime before broom is near the height. It seems scarcely longer ago than yesterday that the oaks were the exact colour of the wood spurge beneath them, the nearest approach to pure yellow that a green ever can be. One evening, indeed, I saw the oaks of Sway absolutely yellow—they were primrose in the fading afternoon. To-day green—yesterday spurge-coloured or even primrose—the day before, that indescribable kindling hue which may be brown or red; it is over so quickly. May can be packed too full. The great upstanding pyramids of horse-chestnut bloom are fully out; the purple lilac is here before the white is failing; the bees are in the thick of the lovely green flowers of the sycamore; and the hawthorn is fast putting on its true bridal dress, so heavily scented. What is over for June?

Queen of the Gold Comb

After the old queen bee in May or later leaves the hive, taking with her the swarm or cast, the tragedy of the princesses, rivals for the throne of the
golden combs, is enacted. That princess first hatched out and most capable of action will visit her sister princesses and destroy them one by one in their cells. If two princesses hatch out at the same time and are about equal in strength and fitness to reign, there may be a long duel. Darwin was sure that the “hatred” which the worker bees show towards their brother drones at the autumn massacre and the hatred of princess bee towards princess bee have come through natural selection; it is the rule that selects for survival the strongest or fittest, and is ever destroying the weaker—a kind of “To him that hath shall be given, and from him that hath not shall be taken away even that which he hath.”

But is hatred, in the sense we employ it of human feeling, the right word? True, the shrill cry of the queens or princesses preparing for the contest has sounded to human ears one of menace and wrath, a war-cry. But a friend whose bee-garden among raspberry fields I want to be visiting at the height of the honey-flow gave me an account of a deeply interesting duel he arranged and witnessed between two rival queens, taken from the hive and shut up together in a box with a glass top. Does it ever happen that two queens or princesses, finely matched, both sting one another and both die? If so, there would be danger of the whole hive or swarm dying out—for there might be no worker grubs in the cells of the right age to enqueen by diet of royal jelly. But my friend, a bee master of long experience, believes that the duel is not to the
death of both. He watched the contest between these two queens. It was long, and his impression was that they were trying to find out, by some means obscure to human understanding, which was the right one to give the fatal sting.

The duel consisted of one protracted preliminary or trial stage, and then one swift and sure death-stroke. There seemed to be nothing like a fierce onslaught by both sides; rather a spirit of cautious investigation or inquiry. Suppose this is the spirit in which the queens engage; what a perfection of science the bees have reached, and how crude and inefficient, compared with it, much of the machinery of human intellect seems!

Professional Flycatchers

Of English butterflies, the three common whites—large, small, and green veined—are the most subject on the wing to the attacks of insect-eating birds. House sparrows, chaffinches, stonechats, flycatchers, and swallows are their frequent pursuers, though the first two usually fail to strike down the butterfly after several excited attempts. The swallow and the spotted flycatcher are, as Mr. Hewett says in his gay book, "The Open Air Boy," the true professionals. "Most birds . . . are extraordinarily clumsy in capturing an insect (a moth or butterfly). I had brought half a dozen white admirals home in pill-boxes one day, and, finding that I did not want
them, I opened my window and let one out. He was instantly attacked by six or seven sparrows. It was like putting a worm into an aquarium of minnows. Only they could not catch hold of him, and I thought that he was going to get off safe, when, swish! came flycatcher, straight as an arrow right through the middle of the sparrows and bore off my poor admiral, pierced to the very heart, to the nearest croquet hoop.” The swallow, my friend thinks, is still more expert. “If the butterfly had been a small one, and the bird a swallow, you’d just have seen four bits of wings come fluttering to the ground, all that the swallow had left after that one deadly snap.” These insect-eaters that live on the wing know how to seize the body of the butterfly and moth, and clip off the wings and indigestible outside parts in the very act: the seizure of the food, its preparation, and its swallowing are all so quickly effected as to be practically one act.

Under the hawking bats or nightjars, at a spot where moths or scarabaei are very plentiful, you may be conscious of little showers of wings, heads, and wing-cases falling through the air—the refuse. The stonechat is not so dexterous a hunter of a fair-sized and nimble butterfly as the swallow, but very persistent. At the edge of the cliff, where the ling will soon be coral, a pair of stonechats have just hatched out a brood, though another pair had full-fledged young a fortnight ago. The nests were built entirely by the hen birds, who are also much more attentive to the young. The cock bird, with his petty melody,
PROFESSIONAL FLYCATCHERS

I see and hear near the nest, fretting at the approach of man or dog, usually feeding only himself. He is almost wholly an insect-eater, and his habit of dropping in the grass for a second from the top twig of a gorse bush or stout plant and capturing beetle or fly reminds one of the butcher-birds by the roadside.

A small tortoiseshell butterfly flew over the ling; the stonechat was instantly in pursuit. For a full hundred yards the hunt was hot, the bird several times darting in and strikingly eagerly at the butterfly, but without success. They passed out of sight, but my belief was that the bird was beaten. The butterfly's wings baulk a pursuing bird. Besides, many butterflies are fully alive to danger, and wary both on the wing and whilst perched and wide-awake. Few English insects have the butterfly's eye for danger and sense to shun it.
JUNE

Cirrus Days

It is sense of immensity and expanse in the firmament that appeals most in these early summer days. The "inverted bowl" of the sky is vaster than at many other times. In past months it was so finite to the vision. There were days when a leaden sky seemed almost on our heads, causing a feeling of oppression, as a low ceiling will. Even on a starlit night in autumn the firmament may be dwarfed. A slight earth mist will bring Sirius or Charles's Wain seemingly within reach of a ladder shorter than Jacob's. But now there is a sense of physical relief and expansion for us in clear June days and nights. Often after a day of sun, the hot air fluctuating to the eye, an evening of utter lull comes on. This is the evening for the nightjar. At close quarters one can hear finest shades of sound in his vibrations, odd little detached chuckles and gurgles that occur at the end of each lay. At such a time I have heard the nightjar—I could swear to it—three-quarters of a mile off; the other evening I could just hear isolated notes in the lay of a nightingale singing at this distance from where I stood.

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CIRRUS DAYS

These are days for the most beautiful of all cloud forms and fancies, those of cirrus, the still cloud of the freezing heights of the sky. It is the cloud that is pencilled out into the finest, filmiest forms. No two cirrus clouds are quite alike in detail, but there are various figures known by a watcher of clouds. There is the marestail; there is the backbone. Endless is the series of wisps and curlings of cirrus. Some cirrus clouds remind one of the stipple work of the steel engraver—others of his line work. Sometimes, in place of cirrus in the blue, hangs a great sheet of dappled grey: it is the fleece of heaven. After dark in June the beautiful constellation of the Scorpion is on the horizon southward. It has the reddest star in all the sky. This is the Scorpion's heart, called Antares. These are Antares nights.

Butterfly Railway Banks

Late in May and early in June the sun-steeped slant of the grassy railway bank is a rare place for earlier summer butterflies and day-flying moths. There are notices to trespassers—made to be broken now and then. Where a branch or farm road passes under the railway arch, it is easy not to see a warning to trespassers. You climb the post and rails, and lie down in the grass where the yellow and red of birdsfoot trefoil and the strawberry-headed trefoil
and oxeye daisy are beginning to show. The linnet-haunted thorn hedge, very thick and bushy through clipping, hides you from any passer-by. It is fine to feel the throb and roar of the engines just above; the earth fairly quivering under the storm of the iron monster. Often one has looked out of the railway carriage window on a bank sheeted with gorse in May or broom in June, and longed to be there. I found myself in the midst of the butterflies and day-flying moths on a railway bank the other day. Among the butterflies were the common blue in large numbers, one or two specimens of the Bedford blue—the tiniest of English butterflies—the dingy skipper, and the small heath: the moths included the brilliant wood tiger, Mother Shipton, and that lovely little thing, the common heath. I disturbed the wood tiger in a corner close to the hedge. It flew up the side of the bank, and I lost sight of it; half an hour later I returned to the spot, and up flew the same moth.

Nature has certainly made no attempt to harmonize the dress of this moth with its environment. It is conspicuous both at rest among the grasses and a-wing. There is a theory that these brilliant colours and marks are sometimes flags of warning, telling birds that those who flaunt them are not good to eat. There is no other way to account for the brilliant dress of many caterpillars. As to the winged insect, however, gaily dressed moth, or butterfly, there is the theory that the brilliance is to attract the females. But suppose the black and
cream-yellow jacket of this wood tiger serve the double purpose of pleasing the lady and warning off the enemy—what a wealth of ingenious resource is stored in that pair of upper wings! Flight, courtship, protection, all in so small a space—this would imply an even finer bit of work than the ordinary theory of the evolutionist that the bright upper side of many a butterfly's wing is to please the mate he seeks, whilst the inconspicuous under sides of the wing, chiefly exposed during rest and sleep, are to secrete him from enemies.

The small heath butterfly I found a more constant percher and rester on grass heads in the sun than the blues or the skippers. The dingy skipper, whilst perched for a few moments on a flower or grass in the sun, keeps opening and shutting his chequered wings as if for display. But the small heath, on perching, will often fold its wings vertically over its body. Only the under sides of the wings can then be seen. Do they by harmonizing with environment screen him from the eye of a possible enemy? I think not. The small heath thus resting during the daytime is noticeable. The brown of a part of the upper sides of the upper wings shows plainly through. It is almost orange in the sun. The black eye near the tip of the upper wing is also noticeable. But Mr. Frohawk, a highly-trained observer of moth and butterfly, has drawn a little picture of this small heath as it appears at bedtime. Then, strange to say, the brown stain is unnoticeable; the upper wings are so thrust back
that their mere tips show above the inconspicuous lower wings.

Clearly, Mr. Frohawk's small heath butterflies (with wings folded) at bedtime—half-past five or six o'clock, say—are less conspicuous than my small heaths on the embankment, resting (with wings folded) during the sunny hours. It certainly does look very much as if when it went to bed, and became drowsy and incapable of flight, the small heath put on its entire armour of protection. But I am not clear as to who, after sundown, are the dreaded foes against whom Nature need protectively dress and arrange the wings of the small heath.

The Butterfly's Waterproof

Secrets with a deeply important bearing on life and mind and their growth must often be held within the smallest space by the lowliest things in wood and field. The chequer of the fritillary's wing, the scrawl on the bunting's egg—if we could but make out for certain the foreign words of the story of these and their like! No hieroglyphics or palimpsest that a man ever pored over could equal in interest a true translation of these. Hence time and attention given to the habits and appearance of these small deer of Nature are far from wasted. A clue to the great discovery may be provided, in the end, by something infinitely small. Within the last ten days I have been making some rather minute
observations on the sleeping habits of small butterflies. I studied the small heath butterfly part of one fine evening, and for an hour or two next day—a wringing wet morning. Every small heath that I found in three different spots slept in just the same way. Its wings were close folded—so close as to remind one of the thin leaves of a new book—the upper pair being laid well back, so that very little showed above the lower pair. The brown patch and the black eye, which are quite noticeable on the under sides of these upper wings when the butterfly is resting in the sunshine, were not to be seen. The common blues in sleep laid back their upper wings exactly the same way. But there was a marked difference between the position in sleep of heath and of blue. The blues slept along the stem of grass head sometimes upward, more often downward; the heath invariably slept at right angles to the grass stem or plantain head on which it had anchored itself.

The blue butterfly sleeps vertically, the heath butterfly, like a man, horizontally. Every small heath butterfly but one which I found was securely anchored on the black or brown head of a plantain. Did they mimic closely in colour or form their environment? They certainly did not. I was easily able to detect small heaths, after a little practice, at three or four yards' distance, even during the rain-storms. The theory of protective coloration can hardly apply here.

Why does the small heath always go to bed on
the plantain or grass head? Why does he sleep in horizontal position? I believe that he and other butterflies and moths sleep aloft to avoid toads and other creatures of prey lurking beneath. Hence protection by position is far more important to them than protection by "mimicry"—that is by resembling the spots on which they station themselves. Next as to the small heath's horizontal sleeping attitude—by exposing himself broadside to the descending rain, is he not taking up a bad position? It seemed so to me, till I examined small heaths in the steady downpour of rain, and found them dry and unhurt. The fact is, this little butterfly has a waterproof perfectly adapted to requirements. The raindrop falls on his wings, but, bouncing or rolling off, leaves them quite dry. Put this to the test by letting raindrops fall off the spike of your umbrella on the small heath's wing; they do no harm. Now, if the butterfly slept horizontally on the ground, or any hard and fixed place, his wings would soon be drenched and battered to ruin.

The plantain bends before the storm, and with it the butterfly. So the risk of being washed away or injured is minimized. It is a most ingenious and beautiful safeguard. The small heath, apparently exposed to the full power of the storms of wind and rain, remains on his plantain head cosy and dry. After an hour's exposure to the same weather, in the field where the butterfly sleeps, my mackintosh clings heavy and sodden to the calves of the legs. The small heath has the better waterproof.
THE BUTTERFLY'S WATERPROOF

One word more on the subject of small heath and common blue position in sleep—why do both lay back their wings so that the under sides of the upper are all but covered by the under sides of the lower pair? As I have said, I do not believe the small heath does this to hide the conspicuous brown patch and the little black eye; the common blue's top wings (under side) are not more conspicuous than the lower wings (under side), and yet they are laid back almost out of sight. I suggest that the wings are laid back because in this position they can be pressed tighter together, and rain is not at all likely then to find its way between them. Rain creeping in might soon ruin the bright upper sides of the butterfly's wings.

Wood Warbler's Song-flutter

The wood warbler is at the height of his song in woods that have put on their full oak-green. The bluebells in these glorious woods are in seed, but what a blue is that of the speedwells and the bugle-flower mingled! Among them, in a quiet glade, shady with larches, the wood warbler floods the air with sound. If two or three of the birds were to sing close together in such a spot in the woods they would really make a din. There is little or no beauty in the song for one who is not near enough to watch the action of the singer. It is arresting, but quite inferior in musical quality to
his distinct courting note, a speaking and emphatic "tee, tee, tee, tee, tee," uttered more often now, I fancy, than on his arrival last month. But the singer is very charming to watch. It is the wing accompaniment that I find so delightful. The song-flutters of the wood pipit and of the wood warbler seem full of emotion; they make amends for indifferent melody.

The wood warbler opens with a repeated monosyllable resembling "it" or "tit," and, quickening up and loudening, breaks into a strong shivering passage impossible to describe with verisimilitude. At the end of the shiver, back goes his head, giving us the impression that the bird is putting his whole soul into this passage, the grand finale. It is much the same with a willow wren in earnest. Distended throat, wings trembling with the energy, mark the end. Often the wood warbler, starting his song on a twig, will run out into the air, and flutter and sing his way to a neighbouring twig. Most of the wood warbler's food is taken in the oak or fir branches through which the bird slips in rather a leisurely way, but now and then he will drop from his branch, when a sharp little click tells the watcher that he has caught an insect in the air. The female birds are now sitting closely. But, earlier in the season, a dainty sight is that of a pair of wood warblers trifling and toying in the air. That the custom of kissing, against which medical men inveigh, is peculiar to human beings,
WOOD WARBLER'S SONG-FLUTTER

is not to be supposed for a moment. Steal upon the ringdove's haunt, and watch the lovers: it is as certain that they kiss as it is that they fly. I have seen kisses given and returned, kisses sometimes showered in on the neck or the cheek. This is not humanizing the acts of birds. It is not sentiment; but a simple, well-observed fact in natural history.

Insect Taming

A singular question is raised by a correspondent who lately wrote to ask me whether the idea that a butterfly will sometimes follow a man is purely fanciful. He imagines that a butterfly made itself his companion for fully a mile in the Cotswolds the other day. Once, in America, a butterfly went with him for miles along the railway track between Lewistown and Niagara. I have had no such experience with a butterfly. But in late summer—long after the nesting season—I was led a short distance along a lonely road by a gestulating redstart, which seemed full of curiosity. There is a bird of African forests which will lead human beings to honeycombs. Gordon Cumming was once led by this bird, not to a honeycomb, but to a lion instead! What motive a butterfly could have in accompanying a human being one can hardly imagine. Ordinarily, the attitude of butterfly or day-flying moth towards man is wary
and suspicious. But one can mitigate it. I have softly stroked the tail and back of a humming-bird hawk moth whilst it has been quivering over a fuchsia bed, and it has not been scared.

By gentlest movements one can take various moths and butterflies with the hand. I captured, the other day, between thumb and forefinger, beautifully fresh specimens of the Duke of Burgundy fritillary, small pearl-bordered fritillary, and common blue, letting them go uninjured. The same day I offered the palm of my hand to the burnet moths, as they burreed among the grasses, and they quivered over it without fear. This was in the sunshine, when butterflies and day moths are most on the alert. No doubt one could tame butterflies like birds. Several red admiral butterflies, however, which I tried to finger on the brambles, as they sunned or rested, with wings upright, were too wary, to my chagrin. I could not touch one. I was not more fortunate with grizzled skipper, small skipper, or the (larger) pearl-bordered fritillary. Much time and curious patience are necessary to one who would have the butterflies about him as St. Francis the birds.

The Fritillary's Flirtation

Erasmus Darwin wrote of the loves of the plants. How is it nobody has told the story of the loves of the butterflies? Theirs often is a courtship
refined as that of the wood warbler, and scarcely less inviting to watch. Some butterflies' lives appear to be the pursuit of love and pleasure. Take those butterflies which seem to live on air. There is the orange tip, whose season has just passed. I cannot see this butterfly feeding as I constantly see red admirals and sulphurs. The orange-tip parade is often up and down a grass field at the edge of a coppice or park. Here, several days this season, I watched the orange-tips flying to and fro in the burning sun, hardly ever settling for a few moments, and never feeding on the nectar of flowers.

Is the parade one of exultation in the sun, or a search for the right mate? Again and again during such a parade we see two male orange-tips meet. Flying at each other as though to fight, they whirl round like a teetotum, and always separate without any harm. Rivalry there probably is among the butterflies of the same sex and species, keen rivalry, but their duels are not hurtful. Feathers sometimes fly in bird battle; I doubt whether that lovely fresh paint on the orange-tip's upper wing, or the green tracery on his under side, is often smudged in this mimic war.

Indeed, this teetotum of the male orange-tips need not be war at all. Two male orange-tips meeting may not at once perceive each other to belong to the same sex—the teetotum whirl may be one of inquiry. The same teetotum is often witnessed on the meeting of opposite sexes. The
The Faery Year

common blues are incessantly whirling round each other.

Not every meeting of a male and a female orange-tip is a greeting of affection. I believe the orange-tip butterflies pick and choose their mates with nicety or fastidiousness. There are what we might term proposals among the butterflies, and there are decided rejections. I have witnessed both among fritillaries and orange-tips. A short and very pretty courtship—one of the daintiest, surely, in the world of love—often ends with such a rejection among the smaller fritillary butterflies.

A male pearl-bordered fritillary will pursue a female. Soon both alight on the coppice ground, among the bugle blossoms and the faint blue of the common—not the germander—speedwell, that little flower which on a doubtful June day is half awake, half sleeping. Sitting side by side, they will, softly and slowly, half close and reopen their wings. Then for a few seconds neither will stir wing, head, nor sensitive antennæ, till one moves, ever so slightly, just to lay persuasively the tip of its wing on the edge of its friend's wing—the coyest of attentions. I have seen the female fritillary do this, but so lightly that her companion never answered to what to him should have been the very magic of touch—seemed unconscious of the love reminder; it was so shy and delicate. But after another second or so he flew off to a bugle blossom in one direction, she, disillusioned it may be, in another, and so the courtship ended. The philter had failed to charm.
THE FRITILLARY’S FLIRTATION

Several ardent love-chases which I watched and followed up ended in much the same way. Do not overlook the flirtations of the fritillary in the speedwell coppice.

The Completion of June

June to-day with its dog-roses is complete. The longest day, the greenest, is always come and gone so much too soon, once we have begun fully to enjoy the year’s red-ripe. Wild cherry, gorse, lilac, laburnum, hawthorn, and the orchard bloom, all gone; the broom’s glow—far brighter, yellower, and more effective at a distance, than the shining gorse which it succeeded—is deadening; and the garden air cannot be heavy many more days with the perfume of syringa. But a pageant as lovely as any of these belongs to this day and the next fortnight. The soaking showers of last week, followed by a day of hot sun, robed the sainfoin in pink purple. At a quarter of a mile’s distance, a twenty-acre field of sainfoin, with a background of oaks and beeches in their full green, snowy billows of cloud on the sea of azure above, is a glorious combination. The pink of the sainfoin is simply sheeted by distance, absolutely solid, unicoloured. This is the most bold and brilliant landscape-gardening that English acres show. No intentional landscape-gardening can vie with this chance of colour and arrangement.
Architect and Artifice

Does the wren sometimes, often, ever, in building a nest, choose such material as, by closely matching the environment, masks it from a curious eye? I have paid attention to this subject for years, but, the more I see and think of the wren's wonderful architecture, the less I can indulge in the luxury of conviction. A little while ago I thought I had reached the conclusion that the wren's nest often matches its environment simply because the bird builds with the material lying immediately about. Thus a series of wrens' nests found in brown dead brake fern were all made outwardly of bits of brown dead brake fern. Inside was dry green moss, which, as an outer cover, would not have assimilated closely to environment.

Similarly all long-tailed tits' nests which I found in the forks of main limbs of ash trees—a site which the bird often chooses—were lined with grey lichen, picked, no doubt, from the ash limbs. Here, again, assimilation. Thirdly, I took note of nightingales' nests, made of dead brown oak and maple leaves, set on ground thickly strewn with such leaves. In each case pliable and good building material is lying close at hand. "Naturally," one might say, "the birds build with these materials. Why should they go further and fare worse? Why imagine that deliberately, or by unconscious hereditary habit, the builders take trouble to make their nests like the matter around them?" These three
ARCHITECT AND ARTIFICE

types of nests, therefore, do not prove to us that the birds copy environment to hide their nests.

But a wren's nest, which I was shown the other day, was so well masked that it inclined me favourably towards the theory that sometimes the wren deliberately conceals its nest by building material that harmonizes with the surroundings. The site was an outhouse wall in a garden. This wall is ivied, but the ivy is brown and withered, and has been cut back severely, so there is hardly any cover. The nest is fastened among some short, clipped stems of ivy which hold a few pale-brown dead ivy leaves. The outside of the nest is made of pale-brown dead ivy leaves—picked up, no doubt, just below the site—and it is only when you look very close by at the nest you discover, worked into one side, a bit of withering green fern; this is so slight it does not tell the secret.

It would make a capital puzzle for anybody not expert in nest-finding. Set the guesser of the puzzle on the garden path, and say, "Find, without moving, a wren's nest within five yards of where you stand, with nothing between you and it. I give you five minutes in which to find it." He would want a second five minutes, and then a third, and in the end would give it up. He might take a minute or two to find the nest, even though you gave him the clue—"look for a slight bulge on that wall." One reason why this nest is so wonderfully concealed, though the site is almost bare, lies in its neatness. There is
not an untidy fragment or end about the whole fabric. The entrance is tightly wattled to perfection. It is as though the builder had used a bagful of tiny tools for snipping, pushing, moulding, smoothing. If concealment were here not aimed at, it is a singularly happy chance result. Amid the thick green ivy of another wall are one or two nests of wrens. Here the outside material is green moss. But, as there is ample leaf-cover, concealment by assimilation is unnecessary; I cannot think it was in this case intended. As to green moss, wrens prefer it to any other material, but it is not often—though it is sometimes—used in places where it does not match its surroundings.

A lady has written to me to ask "whether the long-tailed titmouse uses lichen for her nest because she considers it ornamental, useful through cohesiveness, or protective through its similarity to the branches on which it is fixed." She gives me an account of a chaffinch's nest in a scarlet May bush in her garden. When the May blossomed, a small piece of red Berlin wool was added by the birds at the only spot where the nest could possibly be seen from below. This little touch of colour effectively masked the nest, which was only discovered when the young were being fed. My correspondent is sure the bright wool was not added till the May blossomed, for, if it had been, she and others must have noticed it. It is hard to believe that a chaffinch unites with a fine
ARCHITECT AND ARTIFICE

eye for colour such consummate artifice. Look at the red-backed shrike which is sitting on her eggs in the nest in the roadside dusty hedge at the present time. It is as though she strove to advertise the site of her nest, so plain it is for every eye, so ill-matched with its environment. Still, suppose a wren has such an educated eye for browns and greens, and the long-tailed titmouse for lichen greys, why not the chaffinch for reds? Except that the necessity for a chaffinch to match red blossom must be very rare.

The Goldfinch's Nest

The nicety of various birds and insects—in time to the minute, in place to the inch—is a subject of curious interest. Thousands of years ago, when wild life was studied little, if at all, in detail, men noted that the stork knew her seasons. But this time-keeping, for a bird, is quite rude and elementary. The stork probably can make finer distinction than that between season and season. Take an English bird and a butterfly, which I have tested in this and found to be precisians. The bird is the goldfinch. She may have an unerring calendar of the season and clock of the day, but in the goldfinch it is not so much exactness in hour and season that one notices as exactness in place. I have little doubt that the reason why she has not built again this year
in the yew branch in my garden, overhanging the road, is that the tree has been shorn rather close since she nested in it in May, 1904. This fits in with the observations of a neighbour across the downs, where goldfinches are more abundant than chaffinches; the most abundant, indeed, of the family after the red and the green linnets. He is sure that the reason why a pair of goldfinches did not nest again this year in his yew bush is that their favourite branch has been cut off.

But the pair of goldfinches in the fir at the garden gate built again this spring—the third season running—on the same branch, and in almost exactly the same spot. The nest, being in an exposed position, has each season been robbed after the eggs have been laid or the young hatched; so that my friend has made up his mind to destroy it himself next spring before the eggs are laid, as he believes it impossible for the birds to get off their young safely whilst they build here. The return of these goldfinches to exactly the same nesting site—though there are hundreds of other sites close by equally suited to its habits and style of architecture—argues a very retentive memory for places, and a somewhat unreasoning conservatism. They remember and favour the place, but forget the fatality of it, the loss and distress which they have suffered season after season by building there.

As a bird may persist in nesting in exactly the same spot—though a year has passed since she last nested there, and she may have been absent for
THE GOLDFINCH'S NEST

months and have travelled thousands of miles—on singing from exactly the same twig, so a butterfly or moth will often persist in sunning and displaying itself, or sleeping on the same grass-head or stem, the same flower or clod of earth. I mentioned in another book the odd case of a marsh fritillary butterfly that had its headquarters on a small piece of chalk in a meadow of the river Test, near Romsey; how I found it there several days at the same hour, and how, when disturbed, it flew across the river in exactly the same direction. Then there was the wood tiger moth, which I disturbed at a certain spot on the railway embankment a few weeks ago. It flew rapidly up and across the line, but a short time afterwards I found it back at the same spot, and again it was up and off in the same direction.

A Butterfly on the Tomb

But the drollest instance of this strong preference for certain settling or resting spots which I have noticed so far has been that of the small heath butterfly. This little butterfly seems finical, fastidious to a degree. There is a small plot of ground in the cemetery which has been roughly swept by the scythe. Around is long grass, partly hiding, not unkindly, many neglected records of a pale and silent city. Butterflies affect this place—for the grass grows rank. There is the common blue,
Alexis. The sky-blue butterfly, fresh born, wet from its chrysalid, sitting on the tomb! If a symbol, what could be so exquisite, so subtle in significance? The small heath flits among the unstoried mounds—the poor quarter of the town—and among the iron rails that fence about advertisements of love and worth—the rich quarter—but again and again his trifling figure is back again on the bit of mown ground. He has a rival for this spot, and in the course of a sunny afternoon many short and harmless but probably fiery battles take place, with the result, I fancy, that the interloper is invariably driven off for a time.

The mown ground covers, say, a dozen square yards. The small heath flits over most of this each visit he pays, but nearly always he alights and rests on a scrap of ground covering less that a square yard. More—he repeatedly sits on a certain bennet of a few inches in length. Settling on another bennet close by, he discovers his mistake, flits up, searches around, and, finding the bennet of bennets, is perched at once and at ease. It is not hard for me to locate this perch, because a cut dead stem of grass lies beside it. Possibly this helps the small heath also to find the adored perch. But why the butterfly should care for a particular bennet, when there are tens of thousands all about of the same character, one cannot conceive.
Spells of the June Eve

The first day of summer, to go by the calendar, is about the last on which the nightingale sings. I listened to a nightingale singing strongly on June 19—for his voice is far from exhausted on the day he ceases; on the contrary, it is often at full power then—but by June 21 most nightingales are silent. Not a bar more will they give us till the second week of next April. Garden warblers, blackcaps, and lesser whitethroats continue into July; the willow wrens, after a few weeks of silence, delight us in August. Who has heard the nightingale sing in July in England? May is his only full month.

But the long twilights of midsummer are so full of other charms that we are not in the mood to regret the music and magic of spring. Just before the heavy meadow grass goes down before the mower, when its billowed green is turned to grey by the wind, and broad sheets of it are yellow or purple-dusted with infinite pollen—this is the time to climb the stile and brush one’s way along the narrow path. At nine o’clock the thrush ends, passing in delicious moments from song to sleep, and the nightjar is whirring, and the deep-hid corncrake calling from the maze which its mate threads so easily.

The Ghost Moth’s Ecstasy

Ten minutes later the ghost moths are on the wing. Eve after eve, at this time, one can go into
dewy fields and watch their extraordinary pendulum swing without the wonder of it growing less.

It is the most distinctive and fascinating performance I have ever watched in the veiled summer evening. The swing of the pendulum is usually referred to by those who wish to describe the movements of the ghost moth over the grass tops, but it is not altogether happy as a simile. It conveys the idea of slowness and of a regular, steady beat; whereas, though on the whole the motion of a ghost moth over a piece of ground a few feet square is to and fro like the pendulum's, it is often highly erratic; not for long on the same plane, up and down as well as backwards and forwards.

It has seemed to me in the half-light as if the ghost moth were dangled, and danced on some finest of invisible elastic strings. But it is quite impossible to convey by words a good idea of the ghost moths' aërial dance. The exertion, the ecstasy of the dance must, I believe, be intense and exhausting. I have stood within touch of the dancers more than once of late, and, after a spell, have seen one of them blunder down hastily among the thick, wet grass. Dividing the grasses and searching among them, I have found the Corybant, as though feeble and tired out, climbing a few inches up a stem and folding his wings for a rest of twenty-four hours.

Pick the grass round which he coils his legs, and shake it, he will only flutter slightly and cling the tighter. Whilst the passion of the dance enfolds, consumes him, the ghost moth permits of a near
THE GHOST MOTH'S ECSTASY

approach, and will twirl and gyrate within a foot of your kindled match or taper. There seems to be little or no rivalry or jealousy between the dancers, though they are near enough at times to brush and strike against one another, as in the excitement of the performance they will strike sharply against grass heads, thereby losing, no doubt, some of the white satin dust from their sheeny wings. They appear, sometimes, just to be conscious for a moment or two of each other, but no more.

But what is the aim, the end of the dance; what does it really signify? It is just a display by the male ghost moth of the beauty of his wings and colours to secure the favourable notice of the female ghost moth—this is the accepted theory, and certainly, if it fail us, there is nothing else at present to take its place. But, though we accept the theory, even hug it in the study, doubt will creep into the mind, after we have watched these ecstatic exercises in the mysterious monochrome. Where is the lady ghost, with the curious map-like marks on her duskier wings, watching with admiration or desire? Why do so many dances begin and end without a sign of her?

Why this special performance when the heart and dart moth, the brimstones and the shells, which we met with on our way to the dancing ground of the ghosts, can attain their object by featureless flights along the hedgerow, up and down the lane? And, in any case, outside the common form, the common place of our theory, may there not be a whole
obscure world of incentive and sensation to which we are utter strangers? The feeling at this moment is strong in me that there may be far more in this ghost-moth dance than meets the eye or is covered by the theory.
JULY

The Enchanted Eve

JUNE did not close without one enchanted evening. At ten o’clock at night, the air dead calm, light enough was left for the poppies to dabble the edge of the cornfield blood-red; and this red had scarcely turned to black half an hour later, when something of the after-glow of sundown was still in the west. Previous to this, quick-shifting scenes, wonderful in colour and calm, led up to the breathless night. Whole sorrelled fields, struck sideways by the mild evening sunlight, appeared pink as sainfoin. An hour or two later was the time to go into the meadow grass to watch for the last time this summer the dancing of Humulus, the ghost moth.

No ball-room of artifice could compare in pageantry with that of the ghost moths at the close of June. Since we watched “the dancers dancing in tune” a week ago, in the same place, the meadow seems to have passed into quite a fresh phase. Where whole acres were dusted at the tips with purple or yellow pollen, we now see little forests of the flossiest, most delicate grass heads, with grey the predominating colour. Such was the dancing
floor, one fit for fauns and fairies, with illuminations to match.

First, at nine o'clock, hardly dusk, when the dancing began, there was the gold taper of Mars in the awful blue to the south. Ten minutes after, when the ball was in full swing—it was over, practically, before ten o'clock, only a few stragglers keeping it going till dark—Altair and Vega, those two glorious stars of the midsummer evening, caught the eye by their sparkle; while Capella flashed at white heat out of the baths of colour in the north-west. To see a star of the first magnitude twinkle or glitter any clear sky at night serves; to see the rarer white flash of a star, one must look into the after-glow of a serene summer evening, somewhere above the violet and topaz, and in that zone of unnamed colour in which faint blue and saffron mingle.

The Moths' Dance

In this scene, then, the ghost moths held their revels. Many more were on the wing than a week before, though the satin of some of their ball dresses was losing its sheen. Most of the dancers were males, but here and there a female ghost moth would join in. The movements of one or two of the females which I watched were slightly different from those of the other sex. She seemed less erratic in her darting about. She would hang
THE MOTHS' DANCE

more stationary on the wing than the male, the whirr of her wings being more intense. Even so, the vibration of the wing of the ghost moth when she swings to and fro and hovers is, I think, less than that of the humming-bird hawk moth, or the common gamma, now seen shaping a lightning course from one disk of the honest smelling elder bush to another.

On this subject I have just had an interesting letter from Mr. W. H. Hudson, a naturalist finished to the finger-tips. He writes: "When the moth is swinging to and fro, one effect is produced—or so it seemed to me—which you do not notice. The wings are not so rapidly vibrated as in most moths, so that they do not appear as a semicircle of mists; they are seen as wings still, only multiplied, as if the moth had four or six wings on each side." This is a pretty and true observation, I think. When the common gamma or the humming-bird hawk moth is whirring, the beat of the wings is so intense that you cannot distinguish their outlines. Similar effects are seen in the revolution of the electric air fan employed in crowded public rooms, and in the hover of the kestrel—only the kestrel's wings at a considerable distance appear fixed and motionless. The hover of the ghost moth in its dances is not, of course, to be confounded with the other wild and irregular stroke of the wing which he makes in moving to a fresh place.

The female ghost moth, like the male, is, I fancy, soon exhausted by the frenzy of the exercise. I saw
her, after she had danced for a few minutes, tumble into the grasses, and, climbing up one of them, hook on. Her way of sitting out the rest of the dance was peculiar. She simply hung by the tip of one leg, and yet her hold did not give way when the grass was plucked, held up, and shaken slightly. In this position she appeared so like a dead moth which some wicked spider had caught and sucked dry, and left swinging, that for a moment I doubted if I had plucked the right grass. A very curious and accidental mimicry of death this! I have seen a small crane fly present a similar appearance, though it carried its wings, whilst so hooked by a single leg-tip, in a different way from the ghost moth, rather like a broad V. The lovely white plume moth at rest arranges its wings in the same fashion as a crane fly. This flaccid little thing will alight after each flutter of a few yards along the hedge bank, and hook on for repose.

A Trout's Recreation

The intelligence and emotions of even the most observed fresh-water fish are a very obscure subject. The real, inner life of a fish is dark even to the angler-naturalist. Pike and trout are probably the two fish whose habits we know best. In clear streams the angler spends long summer days watching—sometimes closely—the conduct of trout; yet
A TROUT'S RECREATION

we have hardly any knowledge of the fish, except the best way to capture it. We are familiar with the habit a trout has of "rising short." It rises at the artificial fly and appears to have drawn it in; but when the angler strikes, he finds that the hook has not fastened. The cause of this, indeed the exact nature of the habit, are unknown. For days together trout "rising short" tantalize the fly-fisherman. Then for a stretch, perhaps almost every trout which rises at the artificial fly is hooked.

At midsummer and in spring, year after year, we notice the same thing, but cannot explain it. One theory is that trout rising short are half-hearted, not really eager for food; yet often when they are rising short at the artificial fly, they are taking the natural insect that sails on the water, one of the beautiful little ephemeridæ. Now and then what we call a short rise is, I believe, the result of a spirit of frisky play in a trout. Once I managed to crawl within less than a yard of the spot where a trout was stationed, and float an artificial fly over him. Several times this trout rose swiftly at the lure, struck it with his snout or whisked his tail at it, and went back to his position as quickly as he had risen.

He acted in the same manner towards several natural flies which floated down-stream over or near him. This trout seemed to play with the idea of taking the flies: he drowned or half-drowned them, but took none fairly in his mouth. It was a rare
THE FAERY YEAR

and curious thing to see, showing that fish, like many other animals, have in them the spirit of frolic.

Reasoning Process in Fish

Often we talk of the intelligence of trout and other fish, but we have hardly any sure knowledge. I was reminded the other day, whilst examining a little ditch which is used as a hatching place and nursery for trout alevins, of an astonishing instance of wisdom in some small jack or pike which hang about this nursery. The nursery is fenced in by wire netting. Small jack often find their way through the pipe which supplies the nursery with a constant trickle of fresh water. Reaching the upper end of the nursery, they find themselves blocked from further progress in search of prey. On several occasions jack have been found lying stiff and stark on the top of the wire netting.

It is hardly possible to doubt the way in which they have met their death. Some instinct or reasoning power has told them that the stream must be flowing on the other side of the obstacle and urged them to leap over it and continue their search for fish fry in the water on the other side. This points to reasoning power more surely than the leap of the salmon on the way to the spawning place. The salmon can actually see the river rushing down over weir and ladder—can feel it. The small jack
REASONING PROCESS IN FISH

going down the drain into the little bit of open water beyond cannot be guided in the same way. Some of them, small doubt, reaching the obstacle, turn back and go up the drain into the ditch from which they ventured. Only now and then one, wiser and more foolish than his fellows, leaps on to the wire netting, which he cannot see, and perishes miserably there.

Cow Parsnips

The tangled footways and deep-rutted lanes of England are never better than in early July. Their green, if past its freshest, is still at the full, and there are a few weeks to run before the hedger sets to work in earnest. Sweet-briar and dog-rose, elder-flower and cow-parsnip, each is complete in blossom, and the hemlock with those sinister spotted stems is thrusting its way to the forefront in the chaos of plant competition. Many soft green things have had the start of cow-parsnip in this hard struggle, but none can rob it of its ample share of sun and air. There is a dim footway through the hollow where the cow-parsnips, for a hundred yards on either side, are now a really noble wild-flower sight viewed from a little eminence just above them where the way widens, to become by-and-by a farm lane.

The place is an avenue of cow-parsnips. Brushing past them, a tall man can barely touch, without
being tip-toe, the highest of their grand white blossoms tinged with pink and faintly fragrant. These blossoms are a feeding, sunning, gathering ground for insect life. Refined tiny moths of the day, alert as any butterfly, sit on them, a-quiver with life. Yellow and black striped beetles, flies painted with greens rich as the polished chrysolite's, gather here; if the cow-parsnip depend on cross-fertilization—marriage well out of the family circle—its future should be assured; for on a bright day, when its anthers have matured, troops and troops of insect visitors must go away pollen-dusted from its hospitality.

Butterflies' Beauty Show

Where the avenue ends in the hollow, is a little grassy angle, which, through most of the summer, is a favoured spot with butterflies, being sun-steeped and screened from wind. Grizzled and dingy skippers were here in May and June, with orange-tips, small heaths, and common blues. Now, instead, we have the meadow-brown, rather plain and prosaic for a butterfly, and the small and large skippers. The large skipper—which is a very small butterfly—is quite a different insect in flight, physique, and dress from the small heath. The large skipper can dart and flicker, whereas the small heath can but bob about like a meadow-brown. The skipper is portly and muscular; the
heath a jejune-looking little thing, limp and weakly, like the snow-white plume moth, with snow-white stockings—settled at this moment on my ink-pot. But in two points large skipper and small heath do closely resemble each other. The skipper, like the heath, will return, after each short excursion, again and again to the same grass-blade or flower. He will find a particular blossom of one of the hawkweeds, and sit there with half-open wings scores of times during the day.

Another skipper drawing near, he charges im-petuously, and there appears to be at least a sparring match, perhaps butterfly buffets. Seen in a row of preserved butterflies in a collector's case, the large skipper is not remarkable. But, fresh from the chrysalid, darting and tremulous, he is a gem of life. His almost orange-brown upper raiment is tinged with purple at the edge; the scrap of under-clothing which he disports as he sits and suns on the yellow hawkweed flower is purplish too. His antennæ, organs of a sense which we can only vaguely imagine, are ringed with yellow and black. It is worth stalking a large skipper, going on hands and knees, and creeping within a foot of him, just to note the texture of these antennæ, or horns, a microscopic joy of sight.

What has often struck me about the beauty show of many butterflies is its seeming independence. Is it to win the regard of members of the other sex, to secure a mate? Is this its sole origin and object? We often reason that it is, and so the greatest
thinker on these phenomena was convinced. But why should there be myriads of myriads of such displays among the butterflies each summer month—each summer day—which attract no favourable notice, lead to no mate? The large skipper will go on displaying his beauty to perfection—poising the upper wings so that just the purplish scrap of the lower wings, and not more, can be well observed—careless, unconscious as to whether or not there is a looker-on and admirer. It is so hard to feel quite sure, watching repeatedly these solitary, independent displays, that the thing is not done for the joy and pride in the doing—simply because the butterfly likes it. If neither motive explain satisfactorily the conduct of the butterfly, a third may suggest itself—that these flights, this sunning, this gentle opening—or half opening—and closing of the wing, lovely wing-play, are all parcel of a butterfly perfecting process; that when they have been repeated often enough, he is the physically perfect insect, one of the successful and the matured, privileged by Nature to preserve the life of the species.

A Butterfly's Banquet

Courtship, aërial exercise, battle, finery, and jealous choice of station—we have touched on each of these phases in the life of a butterfly. But this is not by any means all the little which even the human eye, poorly equipped though it is for such
A BUTTERFLY'S BANQUET

fine work, can see in a butterfly. There is the banquet of butterflies. Some butterflies we know as rather greedy feeders. The red admirals and tortoiseshells will feed on a coarse mixture of beer or rum and treacle dabbed on a tree trunk or paling till they tumble over tipsy, whilst the purple emperor and his empress have a horrid taste for carrion. But it is very different with the small skipper. Here is a feeder contrasted with whom the human epicure has a gross palate.

His banqueting board is the flowerhead of white clover or some wild vetchling in the July sun. Visiting now one, now another, he unrolls a black spring-like hair, not unlike the hair-spring of a little timepiece. This implement, pointed fine as a needle, looks, and no doubt is, all sensitiveness. He curiously inserts or winds it in and out among the petals and sepals of his blossom till it finds the nectary that holds the choicest of all foods. One may sometimes see this live hair-spring feeling its way about the flower till it finds the hidden store, making false shots and coming out at the sides of the blossom. What amount does it draw from each of the many stores it visits in the July afternoon? Something infinitesimally small. There is no weight and measure table in our arithmetic that meets the case. The total amount of food in ætherial form which the small skipper butterfly consumes in his summer day would be measureless, being so absurdly minute.

What meal, then, so refined, so daintily served
and partaken of as this butterfly one on a flower in the open air and sun? It is the least carnal of all meals surely. It is good to notice, too, the nice way in which, after a sip or two, the small skipper rolls up the hair-spring and makes it swiftly disappear under the head. Swiftness and precision mark the action; the spring is closed in the fraction of an instant. Thus rolled and put away, it is quite out of our sight and out of the butterfly's way. But, the course ended, occasionally the small skipper, before he flies off the flower, will just push out a tiny ring of it, about the size of a pin's head, for a second or two. Some trifle of stickiness has to be removed, or perhaps the spring has not been rolled up and disposed in exactly the right position, and hence some minute rearrangement is desirable. This machinery must be kept in apple-pie order. A place for everything with the butterfly, and everything in its place.

Attar of Hay Harvest

The great scent, the whole feeling and association of the hay harvest, take complete possession of us, soak into us, on such nights as July brings in. The thing is to come right into the thick of the hay harvest, soiled and subdued by a long day in a city. It is like water after sundown to a plant drooping and scorched by a burning sun. Only the recovery is quicker. The chilly night air, full of the attar of
ATTAR OF HAY HARVEST

the meadow lands, imparts a kind of healing shock to a tired mind and body. This is one of the great restoratives of Nature, so simple and yet so magically quick in effect.

This attar of the meadow hay is precious for other reasons than that of perfumery. It is given out by the essence of nutriment directly to the beasts, and indirectly to men, which we call coumarin. Coumarin is to hay what aroma is to wine. Without it the crop would be wanting in flavour, and so in value. It is the same benign essence, the same aromatic odour, though here unused to-day, which we notice in a dried bunch of the little whorled flower, the woodruff. The plant which gives this finishing touch to the hay crop is the sweet-scented vernal grass. A week ago, in gilt-green meadows, vernal grass might be seen anywhere, and yet it was easy to overlook among a dozen other flowering, seeding grasses. For several weeks, before the machine and scythe were at work, the field was constantly changing in colour, shade, and a million minutiae. Indeed, when it gathered weight, and was nearly ripe, its complexion changed from hour to hour—often, on a day of sun and cloud, from minute to minute. It answered to the sky almost with the sympathy of the sea, when its swelling tide of grass was high.

These changes we noted at a distance. But a study of the minutiae, if only life and June were a little longer and less crowded, would reward one still more. No time, as it is, for any study in detail
of things not urgent! Yellow oat grass, pompous timothy, with its stiff, wheat-green cylinder, fescue, brome, and annual meadow grasses, crested dog's-tail and rough cock's-foot—these and others make the dense, swaying forest that has just gone down. Not a grass, even the rough cock's-foot, but has beautiful characteristics and significant devices for getting its meed of sun and air. In one kind we note the graceful droop, in another the hair-like stems and spikelets, in a third the obscure blossoms like the fluff on the head of an unfledged nestling. Some were toothed like a saw, others carried their foliage like the spruce fir. They softly brushed each other's flossy heads, and divided up the lavish pollen whenever the lightest zephyr breathed on the field.

Witchery of July

Though many birds still sing, skylarks in snatches—sometimes on the ground in the midst of a duel—swallows long and amiably in the early morning, goldfinches and many linnets busy with their late broods, July's music has little of the power and rapture of May. True, the thrush, when he sings in earnest, shows himself complete master of his art by July, but that wonderful freshness about his evening song has gone. The feature of the month is rather silence than song. In woods, at the close of a burning day, when the last peepy notes of the thrush have died out, the nightjars, whose hour it
WITCHERY OF JULY

is, sometimes seem charmed to silence, like the oaks they haunt.

At half-past nine, with this brooding quiet deepening and deepening, the stars begin to appear. The ruby among them, Antares of the Scorpion, is now almost due south, adding by strange colour and flicker to the mystery of the time. Surely this singular star, suddenly seen at its reddest, must at times have struck superstitious generations with fear, as some baleful portent. In its effect on the watcher, it is so different from the benign, steady glow of Venus, or the twinkle of the sociable Pleiades. The beauty of the Scorpion star in these July evenings has a touch of the fantastic.

On ordinary, quiet nights a long, deep sigh will come now and again from the high tops of the spruce firs, but in the sensuous lull of July, even the firs, sensitive to the least breeze, are dead still. This is the very sorcery of silence. Nights steeped in it we enjoyed during the past week, after burning heat. Such silence occurs, of course, at all seasons, but it is at the height of summer, after dusk, above all in large woods, that we are most alive to it. We know the power of sound in every gradation which lives in those full-foliaged trees, each kind of tree having a note of its own when stirred by the breeze, some being aroused by the merest breath of air; rustling, soughing, murmuring, whispering—the leaves have so many melodies; and therefore the stillness of the wood at this season is the more remarkable.
A Celestial Choir

There is one sound perhaps even more the property of this month than its deep quiet at nightfall—the hum in the air on a hot day. There are usually a few days in each season when this music of the myriads may be heard distinctly; yet many people, with a good sense of hearing, pass their lives in the country without being conscious of it. This year it was very noticeable in places for an hour or two on the day on which the meadow-brown butterflies appeared in thousands in almost every grass field. A little after midday, hot sunshine followed the heavy showers which had beaten to the ground the dust and particles, and left the air fresh and perfectly clear. The hum was then at its height. It will continue for several hours on such a day without the least break.

It is an entirely different thing from such familiar music as the happy murmur of bees in the lime at this season. In this case you can hear individual insects, and, looking up and around, may detect the performers. But, though on meadow-brown day the atmosphere was so crystal clear because of the cleansing storms of the morning, one could see nothing of the cause of the humming air.

Yet the number of performers which fill, say, a mile of space with the sound, must be enormous. It is true that a single bee, a single gnat or mosquito, will make an astonishingly loud noise for its size. If the bee and the mosquito were a hundred times
A CELESTIAL CHOIR

larger, and the volume of sound they are capable of were proportionately increased, the buzz of the one and the shrill of the other would be quite unbearable to human ears. But then we hear the bee and gnat quite close at hand. The unseen choir of July insects, of whatever species they be, are clean out of sight, to be seen no more by the aid of strong field-glasses than by the naked eye.

There is every reason, moreover, to suppose that the individuals of which this celestial choir is made up are far smaller and weaker-voiced than any bee. Hence we may infer that their numbers are practically infinite. How is it that they do not cause a cloud in the air high above us? There is no perceptible break in the hum. It does not appear to rise and fall. It is a dead level of sound, a monotony, on the whole—if not listened to overlong—agreeable. Faintly, it may remind one of the sound of a moderate wind among a large number of telegraph wires.

In the spots where I have noticed it, I have not observed the swifts, the highest-hawking of the insect birds, to be particularly numerous. The air, I believe, never hums except in the full summer and during hot sunshine. When it hummed so loudly the other afternoon, the conditions had probably been favourable to the hatching out of many kinds of insects. Hours of hot summer sun, closely following rain, seem favourable to the progress of insect life to the winged state. In June we often notice this in the case of orange-tip and fritillary butterflies.
Spright of the Swallows

Swifts and swallows, though they belong to different families, we can scarcely help linking together. Somehow, the watcher of the four birds—swallow, house martin, sand martin, swift—is always comparing them as though they were of the same family. In some places, say by a river flowing through old thatched villages, with sandbanks or pits in the neighbourhood, we see all four birds hawking or sporting at the same time in each other's company. Then it is interesting to contrast their styles and powers of flight. Probably all have the racing and chasing habit throughout the summer, though it is more noticeable in sand martin and swift than in house martin and swallow. With the sand martin, that butterfly of the group, sprightliest of little flyers, the racing and chasing habit goes on hour after hour, day after day. In one spot by a river, where I often watch the birds, hardly a minute passes in the longest summer day without one of these short, spirited contests between two or three sand martins. The sand martin touch is faery light, the twist and turn of flight are consummate in grace and swiftness; so one never tires of watching these exercises over the shining river.

The house martin has another claim on our regard. It is the skill in architecture and the trustful attitude towards human beings that commend the house martin to us so much. The swallow has a greater number of charming attributes than
SPRIGHT OF THE SWALLOWS

any of them. First, his dress and figure—the rich colours, and the gloss on them, for the swallow is surely the most polished of all our small birds. Seen in repose on the garden tree, where he sings a great deal in these days, the swallow, taking him from the head downward, ends in a fine point like some sharp instrument. The swallow is the soul of shapeliness. His is the bird-form divine. Then his song. He is the only musician in the group. I disagree entirely with those who belittle the song of the swallow. It may be without a note of passion or triumph; but it has the quality of sweetness; it is gentle, affable; whilst running through it is a thread of tune. The swallow, not the garden warbler, should have been called the babillard. I have referred before to his endurance as a singer. He is sometimes wonderful in this, rivalling the breathless half-hour songs of some sedge warbler at dead of night in May and June. But the notes of which this song of the dawn is made are multitudinously thick as those of any skylark, packed far closer together and far more of them than in the song of the sedge bird. This is a performance of the dawn only in July or August. Later in the day, when many insects are a-wing, the swallow has not time for such lengthy songs; then we have instead "short swallow flights of song."
The Bed of the Swifts

Throughout the summer the swifts hold their evening parties, from May till they leave in August. But in the latter part of July and in August more gatherings and gambols are seen, for the precocious young as well as the adults take part in them. Is the young swift, like the young swallow, fed by its parents on the wing? It is possible that in that fraction of a second, when two swifts appear to touch each other in the air, a morsel of food passes, but I cannot say whether this is so. Ordinarily, the swift, alike at its fleetest and whilst easily sailing, makes hardly any wing noise which can be heard at a distance of, say, twenty yards. It is noiseless as the owl. But now and then there is a loud swish from the swift as if a fan were violently opened and exposed to the wind. When the swift desires to stop in his course and go off at a sudden tangent, he can bring to bear a brake power of great force. The wing, fully expanded and presented broadside against the air, probably causes this fan-like sound. But it is over so quickly that it is very difficult to make a sure observation.

Where do swifts sleep? I feel sure that, one and all, they sleep under the eaves of cottages and houses and in the nooks about the church towers where they nest. But the pretty theory that many gather on a fine evening, and, sweeping upward, spend the night in the sky, is favoured by some who love to watch these evening parties full of wild frolic
and bird-joy. The rector of Mottisfont is convinced this is the case—the swift's bed is in the blue deeps—has not the bird even been seen coming down to earth early in the morning? Certainly, the sight of such a bird soaring upwards, or almost stationary at a great height, with apparently no wing exertion to keep it up, might give the idea that sleep on the wing would in some aërial conditions be comfortable, even easy, a little reflex action serving to keep the sleeper aloft. But I have seen swifts rushing to roost under the eaves at the close of a summer evening, and cannot doubt that this, not the upper air, is always their bed.

The Wood Sylph

For lightness and grace of flight the white admiral is first of the English butterflies—the sylph of the July woods. It is worth walking many miles through the heat and burthen of the day just to watch for a few hours this lovely thing in the chequer of sun and shade among the oak and hazel underwoods. One turns at length from the distressful highway, with those parched, grey-dusted hedges, into some cooler branch road; presently, with added relief, to change this for the real woodland ride. The grassy winding tunnel through the green of high underwoods of ten to fourteen years' growth—once we have known this delicious place when wild oat and cleavers are scorched and withered on the road
bank without, we may well be thirsty for it in a July drought—is assuaging as the chalk stream that flows in the meadows beneath.

The white admiral is abundant and well known in the New Forest, but I have never seen it there, nor the purple emperor, which it resembles so strikingly in upper and under dress and to some extent in habits. I associate the admiral not with oak forest, but hazel and oak underwoods, and can hardly imagine it apart from this environment. Last week I went to see silver-washed fritillary butterflies, and found myself, instead, in the midst of white admirals. The woodland ride, with arch of high shoots of hazel, ash, and oak, is cool in the hottest hours. These cloisters have kept their green almost at its May freshness. In the dry, stony coppices that adjoin—haunt of the grayling butterfly—the St. John's wort and the wood sage that flourish in the full heats of summer are out, thickets of staring yellow and pale green blossom. They seem fitted for sun-worshipping butterflies.

But in the high underwoods there is hardly a flower; only here and there in the more open spots along the mossy path a few pink centaury blossoms, or a bramble or two, which a passing fritillary will settle on to probe for nectar. It is the last place one would look for any butterfly save the white admiral. But let the watcher lie down by a little glade, or where some stems have lately been cut by the woodman whose work it is to rack out the lots for sale, and, if this is a white admiral wood, he need
THE WOOD SYLPH

not wait long for a sight of the sylph. Sometimes he knows it has come by the swift-moving little shadow cast on the path within a few feet of where he lies. Sometimes three or four white admirals will appear at the same instant.

Settling on the withered leaves of the racked-out underwood stems, or on the fresh green ones of the growing hazel and oak, they will slowly raise and lower their wings, or stay perfectly still with wings spread out, pressed close—and yet so lightly!—to the leaf, the tips and edges even a little below the plane of the body. The latter is the most ecstatic of all butterfly attitudes—at least this is the impression it conveys to the human watcher. The opening and closing of the wings seem thrills of ecstasy; but this perfect stillness must surely be the acme of it, a butterfly joy too deep for motion.

Now and then a white admiral drops from the green hazel leaves above to the dead leaves on the ground, and the play of its black-brown, white-barred wings among the stems of the underwood matches the play of sunbeam and shade in this place. The effect is charming, and singular in the world of butterfly display. The woodland ride, flowerless and screened from the sun, seems an unlikely place for a butterfly. How much more so the brown carpet of dead leaves spread among the grey, brown stems of the high underwoods! In and out among the green leaves above the admirals thread their way, changing perch for perch; only, once a good leaf throne has been found, and the wings
spread, and the trance of pleasure set in, the admiral is loth to move. Another admiral, or some small alien insect, coming to his leaf and trying to share it, the admiral will shiver his wings, and so shake off the intruder.

The flight of the admiral is distinctive among our butterflies. It is elegant as that of white-sailed racing yacht. The admiral sails the air. Often, with wings full spread and level in his poise, he will skim the air a foot or two without moving a muscle. This level poise, nine or ten feet from the ground, near the top boughs of the underwood, is a characteristic position of the admiral; and often he is right above the head of the watcher, when he seems half diaphanous. It is then the black and white bands are seen to such advantage, and when the wings begin to stir again, and the admiral comes down to a lower leaf, we get glimpses of the fulvous brown or orange-brown wavy bands on his under dress. Under and upper dress both show so well when the white admiral is leisurely a-wing, using the gliding, sailing, floating strokes in which he so excels.

The Stoat and the Shrike

The brand of Cain on the stoat is clearly seen by birds as well as little beasts. Stoats and weasels, at this season, are often in the open fields and park lands foraging for their families. I came upon a
THE STOAT AND THE SHRIKE

weasel carrying off a heavy burthen to her young. She does not drag the field mouse or vole, but leaps along with it, making by this method fairly quick progress through even high, thick grass. Whilst carrying her booty, she does not relax her vigilance; threatened by a human being, she will instantly drop the prey, which is carried by the loose skin of the back, or back of the neck, and dart to cover. The stoat makes progress in the same way, and whilst foraging is as subject to the mob of small birds as hawk or cuckoo. The butcher bird is quick to recognize and clamour at the stoat. Shrikes have their families about them in the bushes now, and in some places are among the most common wayside birds. In a grassy pit I came upon a family party of shrikes scolding a stoat busy for her young. Several times the parent birds flew down towards the stoat as it made its furtive journeys to and fro. They appeared ready to strike it, but did not actually do so.

The whole family chattered while the stoat was in sight, rearing itself up and leaping through the thick grass, lithe and leery, all eye, nose, and ear to the least hint of danger; but, like the cuckoo, unembarrassed by the angry attention of the small birds. How does the shrike recognize the dangerous character of the stoat? How discriminate between a stoat and a rabbit or hare? It is easy to assert that the shrike knows through hereditary instinct, but this takes us no further. There is no evidence that in the far past shrikes suffered appreciably from
stoats, and so, by the survival of the fittest, came to recognize it as a foe, and handed the instinct down the generations.

Copse Grasses

With the blossoming of traveller's joy, we cannot hide from ourselves that the last group of summer flowers has come. The melic grass is seeding in the shady hedgerows, and many of the other grasses are a little past their prime of beauty; the wild oat is all in déshabille. But the copse grasses have not been burnt to ripeness so soon as those of the hedgerow—we have another month in which to admire these. I never could say what I felt of the exquisite show of the speckly copse grasses in July and August. One should plunge knee-deep into the dense undergrowth of the copse grasses and the brake ferns, and spend great part of the summer day with them. The day quiet, in copses that seem birdless save for yellow-hammer and wood pigeon, is not so full of charm as the evening and night lull; there is not the sense of personality about it—it is more familiar.

But we can enjoy hour on hour of it in the grassy coppice, and want more. One of the choicest of all the grasses grows in sunny glades in the young wood—the bent grass. On such a midget scale is its flowering system that a dozen of its petty spikelets—sometimes more than a dozen—set in a line touching each other, will scarcely cover an inch. At
COPSE GRASSES

a little distance, the tuft of bent grass is as a little mist of grey and brown. Now, too, the hard mosaic buds of the knapweeds are opening, and the bees are dusted red-brown with the pollen of the field scabious. Thus the flowers of summer are already in large part flowers of memory.

A Cabbage-white Séance

The séance of the cabbage-white butterflies is held in the burning hours of a July or August day. A common and pretty sight is half a dozen whites sporting or battling on the wing for a few minutes, so engrossed in their play or fight that they will mount to a height of twenty or thirty feet before they separate and go their respective ways. It may be that one of the group is a lodestar, which draws the others, but, if so, the human eye certainly cannot single her out. No particular butterfly in this bobbing, dancing group stands out as the clear object of attraction or pursuit; it is as if all were pursued, all pursuing; and apparently none of these chases comes to anything definite. One cabbage-white retires, then a second, and all at once the affair is done.

But the cabbage-white séance is quite distinct from the gathering in the air, with features so regular and precise that it is impossible to imagine it for a moment an aimless gathering. One may be tempted to regard the fitful, light-headed looking
gathering of the whites in the air as purposeless: like the crowd at Ephesus, at least the greater number may not know why they have gathered. There may be an analogy among birds; in the case of "sparrow shindies," if not "sparrow chapels," many of the shouting, struggling birds, the late comers especially, cannot tell what it is all about. These are sucked into a whirl of excitement, as to the origin and object of which they know nothing. Only, the sparrow's agitation is quite obvious. No one can doubt that he is in a fluster; whereas the butterfly's emotion is cryptic. At a glance, the least observant watcher is satisfied that the sparrows are furiously excited—in the confused butterfly medley he notes merely irresolute bobblings up and down.

But if he watched the séance of the cabbage-whites, he would hesitate to declare this wore a vacant, purposeless look. Half a dozen, perhaps a dozen, whites, chiefly cabbage, but I have noticed an occasional green-veined among them, will occupy a square yard of bare ground. I found them on dry, caked mud on the common, or on close-cropped, scorched turf. They are not oblivious of danger whilst thus engaged; one must approach slow and soft, or they are all up and away in a trice. Some will be sitting on the ground motionless, with wings up, and closely folded, but not with the tips of the upper pair pressed back, as in real repose during the day, or profound sleep at night. Three or four sitters will sometimes be in a line behind or beside each other. Perhaps there is a second little row or
A CABBAGE-WHITE SÉANCE

line, more or less regular, close by, and, whilst the affair lasts, other cabbage-whites will be incessantly fluttering and bobbing about a few inches above the ground. These in turn may settle and fold their wings, whilst the row of sitters, in their turn, may be up, fluttering and bobbing about.

It is certainly not the desire to drink which draws the butterflies to one of these gatherings; I do not see how it can be the desire to feed; the whites, it is true, are considerable feeders at the present time on the common. The spear thistle is in full blossom, full of accessible sweetmeats; the burnet burrs, and the skippers dart, and the meadow-brown and white butterflies bob and flit from flower to flower, probing each with their sensitive trunks. But I have not seen the trunk come into play during this séance. Nor are the sitters all females, egg-laying. It may be a tournament of love and gallantry, the suitors displaying themselves; but, if so, there seems to be no jousting. One habit, common to various butterflies, we often note at a cabbage-white séance; when a white on the wing comes too near a sitting white for comfort, the latter flutters his or her wings to deter the intruder—a sort of "get away, this is my seat" protest.

Wisdom under Water

The chalk stream in late July is an alluring spot when the sun is dipping behind the wooded hill.
Even with gossamer casts and the smallest of artificial flies, it is very hard to deceive a trout in the glare of the afternoon. In the hot, bright hours, with the stream low and fine, the trout is really critical and fastidious. It will rise leisurely on and off through the afternoon at the water-flies sailing down-stream. But when all is said about fine tackle, the fact remains that the bunch of feathers, tied with silken thread and sometimes brightened up with gold or silver tinsel, cannot be a really close imitation of the little insects, often with iridescent wings, the ephemeridæ, which the fly-tyer copies. Indeed, that a wary trout accustomed to feed every day on the natural insect should at times be lured so easily by the artificial, goes to prove that the discrimination of the fish on the whole is, after all, not so very nice. This is not a case, such as the salmon’s, of a fish taking a bright, quickly-moving lure which is like nothing in Nature. Motives of curiosity or excitement, mingled with the promptings of hunger, may be at work there; but here is a trout mistaking the floating bunch of feathers dressed on a half-hidden hook for the natural insect.

In the evening, when light thickens, and the earth cools, from some obscure cause there is usually an hour or so, say, from eight till nine at the present time, during which a little ephemeræ, the “olive dun,” hatches out in large quantities, and appears in a winged state at the surface of the water. By watching often and intently, we can now and then see this small fly suddenly appear at the surface. It is free
WISDOM UNDER WATER

of its husk, and its wings are set up at the moment it reaches the surface, not before. Instead of climbing a stem of reed or grass and drying its gauzy wing before it takes to flight, as does a demoiselle dragon fly, the little dun sails down-stream. In a few minutes its wings are dry, and, far sooner than the demoiselle, it takes to flight. If an up-stream wind blow when the dun hatches, the drying is quicker. Before the dun has sailed a few yards down-stream, it is lifted by the wind off the water and carried into the herbage, where it speedily matures against its final stage of life—that of "spinner" or "spent gnat." This spinner is a marvellously delicate form of life. One can almost see through a spinner, so flimsy is it, so flesh- and blood-less. Compared with a spinner, a butterfly is opaque. In raiment the spinner is often gorgeous with all the colours of a star near the horizon. That such an unsubstantial thing should be able to absorb or break up a ray of light like prism or hard diamond!

Tragedy of a Trout

In four seasons, by wire, trimmer, and trap, the water-keeper has killed seven hundred and fifty pike and small jack. The largest pike weighed over ten pounds, and no doubt could swallow a trout of a pound and a half to two pounds. Whilst the keeper was giving me his experiences of pike, we had a vivid illustration of its truculence.
There was a violent commotion in the water, and a rush of fish across the stream to the shallow, still water at the opposite bank. A pike had seized a trout, and was bolting it alive. The pike, in attack, strives to seize its prey across the back. If it succeed in this, it gives a terrible pinch that breaks the back or paralyzes. Then the pike lets go for an instant or two, and, as the trout drifts round, seizes it by the head and swallows it. But the preliminary pinch is not always given effectually, as proved by the seared back of some trout which have escaped.

Here the trout, only mauled, managed to get across the stream before the pike could seize its head. But then a strange thing happened. The pike, in gulping down its prey, had to contend against a strong trout, not only living, but very lively. The trout's tail we both could distinctly see, as it waved in frantic protest out of the pike's mouth, and actually appeared above the surface of the stream, slapping the water. This continued for perhaps two minutes. Then there was a significant silence, and the tail slid from our sight. The tragedy was done; but for some minutes more the keeper could see a portion of fish under water, whether the pike or trout he could not feel sure in the failing light.

Many of the larger pike the keeper takes by snapping a wire noose on a long pole round them. How is it that the pike waits to be wired even when he must see the man on the bank? The
TRAGEDY OF A TROUT

keeper believes that the pike, intensely watchful of the man, overlooks the noose. He declares that so sly is the pike that if he sees and is seen by one, and goes off to fetch his pole and wire, that pike has invariably disappeared by the time he returns. It sounds like a story of wild life, well invented, but not true; and yet I am not sure that the keeper may not be right. One of the most curious habits in any wild creature is that which the pike has of gradually, by imperceptible movements, retiring from view when it sees a man on the bank near its lair. It fades into nothingness, like the Cheshire Cat. I have often watched with wonder and delight a pike thus spiriting itself away. Whether the habit is useful for attack as well as defence is a question worth following up.
A N England without wheat harvest is unimaginable. No figures or fancies can enable us to think out such a land. If figures tell us we could be well and stable for long without our wheat harvest, they lie. This thing is bound up with the genius of our people more than even the oak. The endurance and grit of peasant character—not quite so extinct to-day as some suppose—belong to it. We cannot talk much to a fair specimen of the farm hand in corn-growing districts without seeing that the wheat harvest is root and branch of him. Now the grand old festival of labour is once again in full swing. Association counts greatly in the life of a country, and here are priceless centuries of it; to strike out the whole fabric of ancient architecture in England would not strike at national association and feeling more surely than to strike out the wheat harvest. Then there is the consideration of beauty and landscape, which are of high importance—and no crop has the wealth of beauty that is in the wheat.

The height and great bulk of the clean, ripe crop, and pure yellow of its valued straw, the leagues of
THE WITHTY WOOD.
HARVEST TIME

colour on its surface, true gold here, rich chocolate-brown there,—these make wheat matchless in beauty and mien among our crops. It is good to lie on the down and let the eye travel over the dark woods of August, alternating with the light of cornfields, waving and racing in the gale, or dotted with the peaked sheaves, array in disarray. This is English through and through.

The Butterfly's Dressmaker

By August the ranks of the full summer butterflies begin to thin. Some species, such as marble-white and earlier skippers, have quite fallen out. The silver-washed fritillary has lost his rich caparison. Few of the dancing myriad of meadow-brown and ringlet of July but by now have shed their velvety bloom. In one a wing is frayed at the edge, another is almost transparent like a skeleton leaf. Some show an ugly, jagged gap in one wing or both, the wanton peck of a small bird of prey. The butterfly is so soon broken on the wheel of life. However, during the last week, there have been new-comers, if in nothing like meadow-brown and ringlet quantity. The peacock, true to its simple peasant name "harvest butterfly," has come with the first fall of corn. In rough fields of hair grass, strawberry-headed trefoil, and wild thyme, the second brood of common blue butterflies is hatching, with the brown argus and small copper.
THE FAERY YEAR

In such a field I have lately found the small copper in plenty. It is among the smartest and most finely finished of our little butterflies. The upper—the show—side of its wings shines like burnished red copper, and the spots and edgings of black are bold and distinct. These metallic and iridescent colour effects on scale or plume are a striking fashion in the world of animal dress. Colour without shine or glow often lacks something to the human eye, and it may be the same with many wild creatures. Even Maud in the garden at dawn had her beauty enhanced by "gloss of satin and shimmer of pearl." Hence we have the "interference colour," that shot and shimmer on the wing of bird or insect which is laid on so lavishly by Nature. The elements out of which is built the tissue of these creatures are so placed as to scatter the light-wave. Light, after all, is the chief dressmaker of the butterfly. The cut of the wing counts most in flight, if in a few cases, such as those of the white admiral and the swallow-tail, it also adds much to the comeliness of the wearer.

The whole expanse of the great waste field, barren in all but beauty, is starred by the flat or slightly concave disks of the stumpy wild carrot; and patches among the rough, seeding grasses are thickly spread with lowly wild thyme, full of pungent aroma. What bugle flower in May coppices is to pearl-bordered fritillary, or wild basil to brimstone, thyme is to the copper. It makes haste from blossom to blossom, gathering Nature's largess of sweet meat.
THE BUTTERFLY'S DRESSMAKER

Hours of an August day are thus banqueted away by the sybarite; but let a few clouds come up, and it is off to bed. By four o'clock on Tuesday afternoon every small copper, blue-brown argus, and small heath had gone to bed and was fast asleep—the small heath so fast that I could not push him off his brown plantain head with a plucked grass bent. He slept in the remarkable horizontal position, just as I found him sleeping weeks ago in another district; this is his natural, almost invariable sleeping posture. He looks rather a moping, lack-lustre little thing beside the copper. The coppers, without exception, slept on their grass head or stem, head downward like the common blues; and two brown argus butterflies, which I found on the grass stems, were in the same posture. So intent is the copper to keep its head down in sleep that, when disturbed, it flies to another grass, climbs up, and usually turns round on reaching the top to fix itself thus. If the hour is late and cold, and they are disturbed from their perch, the blues will settle anywhere—even on the ground—fold their wings tight, and go to sleep with head up instead of down; and I have no doubt the copper and brown argus at such a time will do the same. A female orange-tip butterfly, which I lifted from off her perch at sunset, and dropped in the air, fluttered headlong and helpless to the ground, and there sank into profound repose again.

But the potent drug of sleep may well master other habits and instincts in the insect. The carelessness of blues or coppers in these cases as to how
and where they slept does not show that the usual habit of sleeping head down is unessential. This habit in some way ministers or has ministered to its comfort or safety. Only how? It is conceivable that the head in this position is less exposed to rain. And yet the small heath does not sleep head down, and is apparently not inconvenienced by the rain, which shoots off the head, and leaves it dry and snug.

**Masks of Colour and Form**

Few theories in natural history have received more attention of late years than protective or aggressive colour, "mimicry," and harmony with environment. "When we see leaf-eating insects green, and bark-feeders mottled grey; the Alpine ptarmigan white in winter, the red grouse the colour of heather, we must believe that these tints are of service to these birds and insects in preserving them from danger." Since Darwin wrote thus, many observations have been made, and conclusions drawn, in support of the theory. To doubt this use of colour to animals seems like inviting back chaos in place of cosmos—for, abandon the theory, and a world of colour is straightway void of purpose, a muddle of chance. So we all like the theory. Some, however, perceive plans to aid the wearer in every colour, tint, shade, pattern. We may be sceptical of a good many of the cases they cite in support of colour aid,
MASKS OF COLOUR AND FORM

though attracted to the main idea. Thus I can hardly believe that the dark fawn under dress of the small copper, with its few obscure specks, has been acquired that the wearer may in rest assimilate to the surroundings. The spotted under sides of the common blue seem an equally improbable illustration.

In the first place, it is exceedingly doubtful whether protection by colour or pattern harmony with environment is really needed in these cases; and in the second, if needed, such harmony is not close or true enough to serve. I have often seen insects at rest on grass heads and foliage, without special search even—cabbage-white butterflies, orange-tips, and others—several times as late as nine o’clock on a July evening. True, they have not been in glaring contrast with their environment, but they have not “mimicked” it well. If they had dangerous and persistent enemies hunting for them on their perches at bedtime, they could hardly escape through such clumsy counterfeit. The wild creature of prey is not likely often to be cheated by any “very-like-a-whale” resemblance. Mimicry, to be effectual, must surely be close to deceive the bird, beast, insect, or reptile of prey which Nature has equipped for the hunt, giving it powers of eye, ear, and nose exquisitely adapted to the pursuit. If the dull vision of man can easily detect the creature supposed to assimilate with environment, how much more the highly-trained, argus eye of the wild animal of prey? One of the few cases that does not point
to piercing sight and discrimination in the creature of prey was referred to here recently—the trout, which hundreds of thousands of years has been examining nicely, pursuing, and swallowing the ephemeridæ or water-flies, and yet can sometimes, in a clear stream and on a bright day, be duped by the fisher's fly.

Last month I found an orange-tip asleep on a grass head. It was quite noticeable, and yet I doubt much whether its position was more risky than if it had gone to rest on the flower of one of the umbelliferous plants, chervil or hedge parsley. The theory here is that the green flowery device on the under side of the orange-tip's wing has been acquired through its sleeping constantly on the flowers of umbelliferous plants, in which there is a mixture of green and white. Certainly this suspected case of mimicry in the orange-tip—plagiarizing the parsley—is attractive. The mimicry is closer and more detailed than in most instances, only one doubts whether the winged butterfly needs coddling up when it has gone to bed. Let it perch on its grass stem—as safety goes in the world of wild life, it is well enough there, mimicry or not.

The Rookery at Dusk

By mid-August we feel the shortening of the day. At eight o'clock on a halcyon eve the bat hawks where the swallow did, the dorr is booming,
peewits come down on strident wing to their night haunts in stubble and turnip field. At this hour the pheasants are cocketting to roost, the rookery is in wild unrest. An hour later no tinge of colour is left of a sunset of splendour. It is quite dark; the two vast streamers of the Milky Way are on the south, whilst the Swan, her bright star Deneb almost of the first magnitude, is overhead in full flight across the world. These are signs of the ageing of summer that press home on us. Yet it seems hardly weeks since we stood at the wicket at this hour and looked across the lane at Capella flashing in the baths of sunset—thrushes singing, ghost moths dancing, the air full of swallow sprights.

Of well-known sights and sounds of Nature in English village and park none perhaps touches me so often as this wild unrest of the rook at the end of day. It is full of contradiction—familiar, mysterious, an uproar, a lullaby. The rook preliminaries to roost in their main features resemble the strange, beautiful movements of starling and linnet flocks; and in origin and meaning all these evening hymns and exercises of large associations of birds are probably the same. If we could tell exactly why the seething starling swarm utters from the heavy-weighed tree that extraordinary sing-song before sleep, and why the linnets of a winter eve go through spiral evolutions, we should know what moves the rooks. But these plainly seen, often admired things, are the arcana of wild life. We may tell how the burnish on the dove's breast is effected, or that the
gold on the chrysalid of the tortoiseshell butterfly is only imitation gold, chiefly a matter of thin varnish; but to the actual, the inner life and emotions of the creature we are strangers.

Under the rookery after sundown, listening to the birds, and watching the wing play, we feel there is that in the scene which no general theory about animal life accounts for. First, we notice the variety of sounds uttered by the birds, some settled and seeking a perch to their liking, or floating on high; others coming in from neighbouring fields, or splitting off from the main body and flying to clumps of trees apart from the rookery. There seem to be scores of different words in the language of the rook, if some of these differ merely in the tone in which they are uttered. Out of this concordia discors emerges distinctly the monosyllable of the jackdaw, a bird which often finds sleeping quarters with rooks.

Then the figures which for half an hour a large number of the birds, still on the wing, cut before dropping down to roost, aërial hieroglyphics—on some evenings there is more than half an hour between the moment when "the clanging rookery" first arrives and the last subdued "cawk" of the last rook to get to sleep. By the time the final figure is cut it is more dark than dusk. One cannot think that these figures are merely the irresolute movements of birds, cautious, fearful of perching and sleeping till they have satisfied themselves that no enemy lurks under their roosting quarters. They
THE ROOKERY AT DUSK

denote something more than this, but we have no clue to the origin or object of the tumult.

How graceful and accomplished a flyer the rook can be! Often he seems cumbrous on the wing, but now he floats and dives through the sky with consummate ease and grace. In and out among each other the rooks sail and soar like swifts in serenest air. Effort is minimized to the disappearing point. The bird is upheld like gossamer. No park or village should be without its rookery. It is one of the few drawbacks of living in the midst of a great wood, timber and coppice mixed, that rooks do not take kindly to such a spot. They will come to the woods at certain seasons for the chafers and other food, but they prefer a more open country for nesting: yet a minute or two of flight will take a rook out of the centre of the largest wood in England to its feeding grounds.

The Pearl Skipper

It is good not to have read all the best books of our favourite authors. In the same way we may be well rewarded for overlooking during many years in our district a local bird, butterfly, or flower. It is something saved up for the years to come. The satisfaction which the late reading or discovery gives is all the greater—the new book, animal, or plant coming to us with compound interest in pleasure and entertainment. Thus with delight I discovered
the strange, fleshly-looking toothwort under the larch trees one April; bird's-nest orchids at the edge of the beech hanger in summer—several specimens looking, ten yards off, exactly like burnt-up plants of broom rape; herb Paris on the bare ground under the beech, that English upas tree to most plant life; with hosts of butterfly orchids among the bracken and birches at the edge of the park. One day during this summer I heard and saw a greater black and white woodpecker, "French pie," in a wood the bird census of which I fondly thought I had taken long ago; the shyest bird in quiet wild woods that one can imagine: its discovery threw light at once on the statement of the gamekeeper that he had seen a "black yappingal."

In half a dozen seasons we expect to see all the species of butterflies in a district. But it took me far longer to be sure that the comma butterfly was a north Hampshire insect; whilst only the other day I found myself for the first time on the ground of the pearl skipper, plentiful when it occurs, but extremely local. This little butterfly might be easily mistaken for the large skipper even whilst at rest with its wings partly open. On the wing it must be moving slower than its wont for even the ready eye of an Aurelian to detect it. Now and then, when this skipper makes a short, comparatively slow journey from one dwarf thistle to another, one can detect the singular little marks on the under sides of all four wings, not unlike squares on a chess-board; but, as a rule, it is only when he is at rest, wings
upright and folded above the back, that one has a fair view of his points of difference from the large skipper, a very common English butterfly. Perhaps he is not quite so dressy as the large skipper, wanting, apparently, that purplish bloom about the fringe of the lower pair of wings that gives the finishing touch; but the underwear is curious and effective.

The pearl skipper, in the broad belt of roadside turf, banquets on one course, that of the dwarf thistles—no epicene feast for him. It is whilst probing the thistle for nectar that he can be stalked and examined closely. Settled on the ground or on a grass blade, his wings half open, the upper pair slightly separated from the lower—just as the large skipper sits—he is wary and alert. So quick and erratic is his flight that one must strain the sight to follow him from thistle to thistle. In a flash he is gone. The grayling butterfly, disturbed on the bit of burnt, ash-sprinkled ground on the opposite side of the road, scene of the gipsies' camp fire (this place is sacred to gipsies and butterflies), flits a little way with peculiar gait, wings half open, half closed, only to return to the same spot. Down sits the grayling where and as he sat before, drawing from view, as if with some well regulated little spring, the tips of the upper wings that sport the butterfly "eye"; and then, it must be said, he does assimilate almost perfectly with environment. But the pearl skipper's rounds are longer or more erratic; disturb him, and it may be half an hour before he returns to the same scrap of thmy turf, if he return at all.
Scenes of Harvest

With the air above the near stubble fields a-shimmer, and blue hills smoking in the peculiar glare of August, the harvest draws near its close. The bleached-looking barley, a poor thing in colour, nondescript, after the glory of wheat, is being stacked. Even a sound of threshing is in field corners, where some thin crop of rough, poppy-mingled oats lately delighted and offended the eye. Rising and falling in rhythm as the burr of nightjars on haunted midsummer eves this hum of threshing machines is the most lulling music. No sound of harvest is unmelodious, scarcely the rattle of the elevator at the stack side, never the slow clank of the team coming home or going to their patient toil, nor the terms of encouragement and reproach which the driver or carter addresses to his horses, in broad Anglo-Saxon. But the hum of the thresher is best of all; there has been nothing of the kind quite its equal since the swish of the scythe in dewy meadow grasses ceased in England.

All the work and movement of harvest in sultry August days are restful and assuaging to watch. Though it is often a matter of livelihood that the grain—gold with none of the dross of gold—should be got to the stack whilst the weather holds up, there is no rush or scare. In each quarter of the field the task is done with the slow dignity of endurance. In the hottest hours, when the unseasoned man who does no work at the earth feels
SCENES OF HARVEST

unequal to the least physical exertion, the harvesters steadily, evenly persevere. In the dust and sweating heat at the stack top, the toilers go on pitch-forking the sheaves of wheat with the regularity of the elevator which is raising it to them, of the engine which is supplying the driving power. In another part of the field the wain is being loaded in the same slow, constant manner. From a neighbouring field comes the rattle of the cutter and binder. In a third field two men are thatching a great wheat stack piled up a few days ago.

The whole scene of patient, enduring toil, men and boys, with straggling line of women and children leasing in the stubbles, is beautiful. We watch it year after year with fresh interest and pleasure. It is the simple, direct illustration of a man earning his bread by the sweat of his brow. So many forms of labour seem meretricious compared with the harvester's. As to the slow gait of the farm worker in wheat-growing England, it goes naturally enough with the quality of endurance in field labour. It may even be essential to such endurance. An old farming writer complained of this deliberation in South Country folk, and even reckoned the amount of time wasted in the day through slow movement. But if at the end of a long day in harvest time he could have seen the height and bulk which the sheaves piled up by a single hand would have reached, he might have been more generous; or consider the amount of corn which one of these slow men could cut with reaping-hook or with
scythe in the day of hot sun. Plenty of villagers are at work in the harvest fields to-day who, in their time, have used both sickle and scythe. Even with the sickle they could cut between one and two acres a day. A mighty mower would cut with his scythe two acres of oats between dawn and sundown, and be ready for two more to-morrow.

Wheat was another thing. A glance at a heavy crop gives an idea of its resistance to the scythe; but even of wheat, whole fields went down in the day before three or four good men. Now a great part of this immense endurance and thoroughness has either been dissipated or turned into other fields of action. Whether, in the long run, the change prove good for the manhood of the country, who can tell for sure? But the saving in time and strength is clear—a field of corn which four strong mowers would hardly cut in two days will go down in one day before the machine and four horses, with a driver. So to-day we have the fleetness of machinery for cutting, binding, and raising aloft the corn, joined with the steady endurance of the toilers for loading the wain and building the stack. It certainly seems an ideal union of qualities for physical toil.

The Memory of a Butterfly

A picturesque sight, for one resting on the broad belt of turf and thyme by the lonely branch road,
THE MEMORY OF A BUTTERFLY

is the long troop of swarthy gipsies coming up the slope; pleasant, too, when the gipsies have passed, with their drinking cans and tin ware and jabbering children, and left the spot again to hours of inviolate quiet. The pearl skipper that was here a fortnight since has gone. But still the turf and thyme draw butterflies. There has been a new and large birth of blues lately, the small copper is still untarnished, and the brown argus has appeared, favouring bird’s-foot trefoil for nectar. The common ancestry of blue butterfly and brown argus seems certain. On the wing, female blue and the argus are hard to distinguish. Also, argus rests and sleeps exactly as blue does. In flight the argus appears a slight silver-grey figure, with movements a trifle more erratic than the blue’s. The precise object of only a few actions of insects are clear to us; all the others call for long and patient study in detail. We do know why the hive-bee fans, but not really what the touching by one bee of the antennæ of another signifies.

Why the white butterfly flutters among the cabbages is plain, for constantly we see her settle for a few seconds, curl her body, and with it touch the leaf—she has gummed to it an egg. But it is not plain what actuates her in the choice of a particular leaf—for she does not lay quite at random. It is clear to me also that the memory of the female cabbage-white, seeking the right leaf for her sticky treasure, is very defective. One may see her visit and flutter over some cut and withered cabbage
leaves, and, finding these unfit for an egg, bob off a little way. But sometimes three and four times she will bob back to the same spot to examine each time afresh these withered leaves. We know why the humming-bird hawk moth (which has been among my violas this week once more) hangs stationary in the air over flowers—so stationary, a friend asked me the other day was it suspended or not. But why does the pearl skipper, with some of the moths of its own physique, sometimes sit on a leaf, or the ground, vibrating its wings intensely? Why the frantic haste of the grayling butterfly and this little argus brown? Why over the hedge and back again as if for dear life—up and down a slope like mad—over a thousand blooms of small scabious or bird's-foot trefoil, only to settle, after all, on one of these? The idea these performances give is one of a random, feather-headed creature with about as much fixed purpose, deliberate plan, as that of dandelion seed in a gale. Yet I believe the grayling and argus butterflies are both in haste to good purpose.

One fact in butterfly life has much impressed me this summer. Until we come to watch the movements of butterflies on flowers closely and often, we scarcely realize how large such insect agency may be in the work of carrying pollen from plant to plant. Butterflies play a more important part in this than I imagined, and I like to note the way in which certain kinds of butterflies specialize on certain plants for days together. Thanks to this, less pollen is wasted than would be if butterflies went carelessly
THE MEMORY OF A BUTTERFLY

from one kind of nectar-producing flower to another kind. I have noticed a few of the skippers floury with pollen. One of the few butterflies which I have not seen drawing from the nectaries of flowers this summer is the white admiral of the woodlands.

The Starling's Return

It is a strong point in the starling's favour that he sings at a season when bird-song is rare and valuable. This summer not all my starlings had got off their young till well into July. Then the birds, young and old alike, quite disappeared in the usual way. Yet several of the old males have returned—indeed, they were back to their favourite lawn and shrubbery by the beginning of the month—and every fine morning are in excellent tune again. The weeks in the year when the real song-bird starlings are not heard in favourite haunts might be counted on the two hands. Early morning, up to about eight or nine o'clock, is the time the starling gives to song in August and September.

There is no sign of motive of gallantry or rivalry, love or war, about the song of the starling now, if at any season. He makes no attempt to drive off another starling singing from his own or the next branch. He sings alone, or in company, in the same happy, contented strain; indifferent whether his perch is a prominent twig on the apple tree, or
deep hidden among the sycamore leaves. But the cirl bunting, also a late summer and early autumn songster, always chooses an obscure position. I have never noticed him singing from a bare and exposed twig, or from the top of a bush or small tree; whereas the yellow bunting rarely sings from any twig save the topmost, and by the seashore hour after hour the wheezy corn bunting will occupy a similar perch. The topmost twig used by the yellow hammer serves other purposes than song at this time of the year. The bird nests very late—even now it may have eggs or young in some places—and on his high, commanding perch the male bird keeps watch and ward. He will charge and rout a butcher bird, that comes suspiciously near the nest, with high spirit. The male yellow hammer, like various other English birds which take little part in building the nest or hatching the eggs, watches and waits on his lady assiduously—a good family bird.

Butterflies and Mimicry

The question whether or not the butterfly cheats its enemies by resembling in colour and marking the leaf or plant stem it sleeps on was referred to in this chronicle early in the summer. Since then I have closely watched common blue, brown argus, small copper, meadow-brown, small
BUTTERFLIES AND MIMICRY

heath, and large heath butterflies at rest, to determine if they really mimic or match their environment. I know that many careful naturalists believe in such mimicry, but I cannot agree with them, so far as the first five of these butterflies are concerned. Blues and coppers are still out in large numbers. One day a small copper butterfly settled on my coat, hooked its legs into the nap, and evidently proposed to spend the night on me. Blues I found as plentiful as ever a few days ago, on the grassy hillside. They were sleeping on the dry grass heads, though a few chose the hard brown heads of plantains. Every blue slept in the customary position, head downward, the small copper and brown argus in the same way; whilst the heath slept horizontally.

If the blues had been on the flowers of the smaller field scabious, which were plentiful at this spot, they would have matched the environment better than they did the grass heads and brown bents, for there is a great deal of silvery-blue colour on even the under dress of these butterflies’ wings that would match fairly well the colour of the blossom. The lesser scabious matures its seeds in a bristly ball or burr. They are neatly packed together, and pass quickly through a series of changes in colour—from green through mauve or lavender to grey and brown. The whole might be a pincushion of Lilliput covered with finest needlework to match, a lovely little thing in finish. But no butterfly went to bed on the seeding scabious,
perhaps it was too prickly; nor one on the scabious blossom; the bulkier field scabious blossoms, on the other hand, and those of knapweed, are couches of which many a yellow or orange humble-bee avails itself when the August evening grows chilly. There the homeless humble-bee is safe from reptile and field-mouse, and such small deer as may pry for insect prey after sundown. The safety of bee is, I believe, the safety of butterfly—it is the position, the couch on high, that protects the bee and butterfly, not the mask of colour or marking.

After a little practice, any man furnished with good eyesight can easily distinguish these butterflies—blues, coppers, small heaths, and meadow-browns—from their perches; and so we may be sure that the small beast, bird, or insect of prey, with sense of colour and form, would also distinguish them. To the species of butterflies mentioned I have given special attention. But quite often, without even searching for them, I see cabbage whites and other butterflies asleep on perches to which they by no means assimilate. My belief is stronger than ever that the butterfly in bed is in safe quarters, even in a world of enemies. There may be some species of English butterflies—of moths I say nothing here—which sleep in riskier situations; and it may be that Nature has given these a special armour of colour. I have never seen the green hairstreak on its bed, but can imagine that its under dress might be protective, as some coat of mail worn secretly by a man living and
sleeping in a world infested by enemies. I presume, of course, this green hairstreak sleeps on a fresh green leaf.

One fact in the sleep—as distinguished from the temporary day repose—of these four or five species seemed to me at first to tell in favour of the theory that the butterfly puts out of sight its striking colours and marks, unless these match its environment; namely, the habit these butterflies, also the large heath, grayling, and others, have of lowering the folded upper wings till only the tips can be seen. Thus in sleep they show scarcely more than the under side of the under wings. The spots and "eyes" on the under sides of the upper wings of the meadow-brown, small copper, small heath, and large heath are thus put out of sight, with the result that the sleeper is less noticeable. A few seconds after the butterfly has perched for sleep it draws down its upper wings, and the "eye" disappears. But I now think that the object of this is not harmony with environment. It is likelier the butterfly does this to economize the extent of wing surface exposed to weather. A butterfly should not waste its ornaments on the night; as it is, they are spoilt too soon; you can almost see through the edges of the battered wings of dark green fritillaries and large heaths that linger in the woods to-day.
Birds in August

At the second blooming of the honeysuckle, the bird concert in the deep woods has almost ceased. The tearing cry of the jay and the loud laughter of the green woodpecker are not out of harmony with time and scene, but neither can be called music. The yellow hammer has done, and not a thrush or blackbird gives a single bar. But for the perpetual ringdove—which still has unfledged young—and for the robin, there would be no bird-song now in the oak and hazel woods. At half-past four in the morning the robins are without a rival, for in late August the very wren is dumb. The robin at dawn is good to hear. There is a strain of tenderness even in his least developed efforts which always appeals to us. At present the robin's song is not quite developed. One may listen to the birds singing against one another in the quiet of August woods and recognize little of the familiar robin lay except this pathetic quality. One snatch recalls the hurried whitethroat, another has a suggestion of starling. The robins of August, challenging one another, sing without style or experience; it is little but a collection of odds and ends, halting and abrupt. But a few weeks' practice will make the perfect robin melody, which is almost as much a feature of the English autumn as the falling leaves.

The most beautiful and finished passages in the songs of blackcaps, nightingales, thrushes, blackbirds, robins, and other birds must come through practice.
The desire to sing is instinctive, and so, perhaps, are the general features, the outlines of the song; the rest must depend on the strength of the organs of music possessed by the individual bird, on its ear, on its assiduity. This explains why the song of birds of the same species varies so much among individuals, and why it is choicer and stronger after some weeks or months of practice. I spoke of the case of several thrushes which produced passages extremely like those of nightingales. Dr. Japp, who has written interesting books on wild life, reminds me of a similar experience. He says: "Long ago, in the appendix to 'Hours in my Garden,' I made a good deal of reference to this subject. Mr. Mann Jones, of Northam, Devon, as a naturalist and wakeful sleeper, paid closest attention to this matter. He had followed the thrush's song from the first crude efforts to perfect bars, and was assured that the perfection was got through practice, believing that the thrushes do exactly as some of the American turdidae do—go into retired corners to practise these bars they have fallen in love with." The idea of a bird listening intently to other singers and deliberately practising is on first thought rather hard to entertain, but I believe it is thus, largely, that the perfect song is made. The robin's song raises another question—why do some birds, such as robin, starling, and thrush, give so much time and energy to music in autumn and winter? The usual interpretation of bird-song is that it is impelled by gallantry and courtship. But birds that
sing with high spirit out of the courting and mating season must be moved by other feelings. Perhaps the robin takes an aesthetic joy in producing a perfect September song. The pleasure some birds feel in singing is to me certain.

**Driving out the Drones**

The honeyed hours of the drone are over. Whilst taking some sections of sealed honey for a friend last week, and overhauling the stock, I saw the driving forth of these large, alarmed males from one hive. Most authorities say the drones are often stung to death before or after they are driven savagely from the paradise where they have lolled away the summer; and I suppose this is so. But I did not see any drones stung to death after the expulsion, nor any dead drones rolled from the alighting board. The manner of the expulsion was absolutely similar in the case of each drone. He came out of the hive wrapt in close embrace with a single worker. He buzzed and rolled off the alighting board, crawled over the yard or so of bare ground of the bee-hive shed, lugging his tormentor with him. At the grass outside the shed the two separated, and with a loud final buzz flew off in different directions.

The worker bee always held on to the drone by his body, or his wing at the point where it joins the body. From time to time the worker’s body would
DRIVING OUT THE DRONES

curl in a wicked way towards the drone’s body, as if for the fatal sting, but no sting was given; perhaps the worker did not intend to waste a sting, or in the struggle and confusion it could not find the mortal part in the drone’s body into which to squirt the poison. But my impression was that there was no need to sting. The drone had received a tremendous scare and thrashing; he flew off, surely never to return.
SEPTEMBER

The Storm

In the history of an English hamlet some great storm often stands out as a wonderful event. It may belong to a vague past, elders alone speaking of it with authority, and even their authority borrowed, for they only "heard tell" of it as lads through a past generation. Such oral history can be borne out by mark on tree or building; the church steeple was struck, the shire oak, or the clump of pines on the windy hill. On the whole, few trees seem to be struck, in spite of the warning to avoid trees during a storm; the scarred oaks in English woods are far between. But a fortnight ago a ribbon of fire, a storm compressed into narrowest compass, fell on the common and high-lying wood near the hanger of beeches. The oldest villager cannot recall such artillery. It slew cattle in the valley beneath, though a few miles off; across the common, the sun was bright all the time, and the workers never left the harvest field.

On common and wood, four or five good oaks bear witness. It is an idle boast that we do not fear the lightning—we only do not fear because
THE STORM

we feel sure it will not strike us. These oaks, fresh from their ordeal of fire, show to the full the glory and terror of storm. One oak it struck on the leader, at first a light touch, just fraying off the lichens. The flash of a lightning instant later, and it wrenched a large branch off the leader, and laid this spoil flat across another and unstruck branch. Then it ripped into the stubborn wood of the trunk, and serpentined, over smooth and knotty places alike, in and out under the armpits of branches, to the ground, to disappear into a little black pit of its own making.

In another oak, the flame broke up into two streams, which licked the tree on different sides, peeling trunk and branches clean as any bark stripper's tools in sappy April, hurling ruined bits ten, twenty yards, shrivelling the leaves of plants and ferns which grew about the tree. But the particular wood wreckage of the lightning—snake lightning the villagers call it—is the oak shred and splinter. I gathered shreds seven to ten feet long torn out of the trunk of one oak. Some yet hang in loops and festoons about the stricken trees, others are scattered yards around. There are long, fine shreds so tough and stringy one can tie them in double knots; other shreds so rough that sharp splinters would enter the hand drawn rapidly along them. These strange fragments are witness of something besides the spite of lightning—they show the splendid hardihood of the English oak. An elm might have split to the very heartwood
The Faery Year

at such a stroke. The trunk of the oak is only flayed in its outer parts by this scourge of fire—the wound never reached the vitals.

The Large Heath Butterfly

The large heath is one of the butterflies which, at rest, are thought to resemble closely their environment, as various caterpillars do. Though common along the hedgerows, it is quite a typical butterfly of English woodlands. There is a favourite path of mine where companies of large heaths have danced away the summer. It is in the true coppice of scented hazel. The underwood lies on either side of the winding, quiet way. There is noble undergrowth of brake fern—beginning now to lean over and turn sere with bramble and bent.

The dim track is half carpeted with moss. At its edge grows the creeping St. John’s wort, besides stiff upright species of the plant which are among the first wood things to wear the hectic red leaf of decay; in contradiction the oak stoles can show the high-polished red leaves of their young vigorous shoots, for there is more of spring in September than meets a casual glance. It is the very woodland path along which, later in the year, to carry a gun; hope of woodcock, certainty of wood-pigeon, makes such a saunter for sport alluring in autumn. But there is no thrall of
THE LARGE HEATH BUTTERFLY

woodcraft so masterful, once it lays hold of us, as that of watching the ways of small bird or butterfly in minute detail; and this is the place to watch the large heath butterflies. In spite of rain and gloom, they are still on the wing when the sun comes out, disappearing directly the day clouds over. The large heath is sure to be quoted as an illustration of protection by colour and marking. When this butterfly settles on the coppice ground amid the litter of dead leaves and dead twigs, and various small plants which have lost their fresh green, it is unnoticeable. Like all the other butterflies I have spoken of, when it perches for rest it presses back and downward the upper pair of wings so that only the under sides of the two under wings, folded vertically above the back, are exposed. Its form becomes that of a small scalene triangle. The colours of these exposed wings are browns and greys of sorts, and the bands, or marblings, are nondescript. The effect of the whole is obscurity. A drab thing is the heath in repose; so featureless, it seems made to be overlooked. And we do overlook it: I overlooked it for years. We expect either gay colouring or curious and intricate marks on the butterfly's wing. Here we have neither.

Looking curiously into the matter, I cannot see that Nature has made the large heath in repose really like its surroundings. After all, the ordinary perch of this butterfly is not the ground littered by dry, dead leaves of brown and grey. Along the
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woodland path it may be seen, when carefully searched for, in its attitude of rest or sleep on fronds of fern, on green leaves of any of the underwoods; and, once we have troubled to find it, we notice that it does not resemble in colour or marking its seat. We have overlooked the butterfly, not because Nature made it cunningly match its environment, but simply because it is too slight and plain and uninteresting to catch the eye for colour or ingenuity of pattern. Here is no case of a "leaf butterfly." No trouble, surely, has ever been taken to make the large heath harmonize with its environment.

The Butterfly's Nightdress

As for shape, the brimstone butterfly, now among my phloxes, suggests plant mimicry far more than the heath, through the cut of its wings, which are somewhat leafy; not that the brimstone offers very satisfying evidence for the theory. I cannot guess why the large heath, never heroic, is in repose such an absolute nonentity. I only feel pretty sure that he has not been by natural selection fitted out to escape his enemies by the colours and marks on the under sides of his wings. I am confining myself almost entirely to the large heath's repose during gloomy or cold days. In all probability the butterfly presents a similar appearance in his final position for the night sleep. But it is often very hard to find him in his night quarters. My impression is

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that at night he clings chiefly—head upward—to the leaves and small stems of the underwood, the hazel, for instance; for late in the day, when the dusk is near, I have not been able to find a single heath on the bracken fronds. Now and then one may beat him out of his night perch in the hazels, but it is strange how rare this is in the wood.

One word more on the common blue butterflies at night. In not a good light one evening, I found a large number sleeping on the brown heads of plantains in a field of rough pasture. They did not resemble their environment; indeed, in a puny way, they were in marked contrast with it. I saw some on plantain heads six, eight yards away. As a rule, one blue only occupied a plantain head, but in a few cases a plantain was double-bedded. The nightdress of the blue on its plantain is quite remarkable; sometimes it is more blue than grey. I have seen scores of blues at rest this summer, but not one which, by the colour or pattern of its nightdress, matched, much less mimicked, its surroundings. I should describe the purple hairstreak in its evening or cold day grey, asleep on the green hazel leaf, as on the whole less noticeable than the common blue at rest; but I cannot perceive the least mimicry of environment about the purple hairstreak either. The purple hairstreak—which I have seen at rest a few hours before writing this—lays back its upper wings in the same way as the other butterflies mentioned. It appears in July, and may linger till the end of August.
A Mouse's Dessert

The wood mouse is one of those lesser inhabitants of a wood which live a secret life. However close and patiently we watch and wait, we can rarely see this little creature building its house or waiting on its young. Its courtships, gambols, and rivalries are hidden. The menu of the mouse is, perhaps, daintier and more diverse than generally supposed. It is no mean climber; and, twice within a year or so, I have surprised it running along the slender branches of a bush; once last year on quite fine twigs of an elder bush, and the other day up the wayfaring tree. When alarmed, it runs down the stems to hide in the dead leaves and undergrowth.

It is a pretty thing to see this mouse adventuring along the brown stems of the wayfaring or mealy guelder rose tree, descending nimbly and surely, but not very quickly, to the ground in alarm. What does the mouse get up into the wayfaring tree for? I am pretty sure it knows somehow that the scarlet berries are turning plum colour; and that the same quest takes it up the elder bush. It is a fruit-eater.

At Fall

There are two kinds of autumn day. One is when the fallen leaves seem recharged with life by the west wind, full of some wild purpose of
movement: all at once they will run an even race in companies of scores and hundreds across the lawns, and stop as suddenly; another time and each leaf has its own revelry, scurrying through the air and over the earth, flinging itself flat on walls and window-panes, scraping and crackling along hard places, driving its way into obscurerest nooks and corners, where it wedges itself tight for months to come. But this is in October: the unchaining of the leaves for their autumn rush and dance is not yet. The typical September contribution to autumn has little leaf-play; the twirl through a still air of the seed-cases of lime tree and sycamore is more its feature. Its day, when perfect, has a certain exquisite mingling of sun and wind, just the right amount of both to produce an effect soft and mellow. There is a suggestion of summer about the early afternoon. The mighty bowl of blue and grey overhead is flecked with twittering swallows; the pencilled outline of the distant hills might be a full summer one; red admiral butterflies, splendid in caparison as any of July, sail among the Michaelmas daisies. But it is all done before sundown; there is a pinch in the air late each afternoon.

A Badger’s Haunt

The badger’s holt is in the densest part of the hanging wood. Here the stoles of cornel tree and
hazel are more crowded, and their stems thicker than elsewhere. It is the hanging wood of the bird’s-nest orchid, of Solomon’s seal, and herb Paris with single berry now livid ripe. A lonely and alluring place. To reach it, we leave the long woodland ride, that mile of gleaming green, whose grey oak trunks often wear a strange unsubstantial look after sundown, and turn into one of the mere tracks through the highwood. It is the special charm of these tracks that they wind and wind so that one can never see or be seen by any wild creature more than a few yards ahead; a charm undesigned, for the track was made by woodmen going to and from their work in the shoots; it winds because the men picked their way among the underwood stoles—these paths were never cut and stubbed like the broad, straight rides.

The quiet of the tracks that lead to the hanging wood is enhanced by the moan of the wood-pigeons and that deep, deep note of the stockdove, surely the bass of all bird music. The quiet of secluded places and of evenings of witchery is added to or brought out by certain sounds; the nightjar for me enhances quiet, so does the sough of the wind now and then in the larch tops.

The badgers have lately dug out tons of clay, chalk, and large flints, some of which weigh four or five pounds. Three holes have fresh spoor, and probably there is communication through the great tunnels underground. Between the holes are two oblong pits, like disused woodland sawpits, which
A BADGER'S HAUNT

have now partly filled up; the underwood has been cleared around, and here the pipy stems of wild parsnip have pushed up seven feet high. The pits and cut underwood tell of a badger hunt a few years ago. They came with crowbar, spade, and pick, and the dogs of no particular breed or pedigree but with a local reputation for pluck to face a badger. They found a badger, and dug nine feet deep into the chalk, and I hear that they finally sounded him some thirty yards from the spot where the dogs went underground! But they went away baffled. The badger was not to be drawn. I visited the spot the other day, and recalled my badger hunt of long ago—at the same burrow. In this hunt, too, the badger made a great resistance, and dug amazingly before the keeper seized him by the tail, when at length he backed out of a hole, and, holding him up one moment, dropped him into the sack the next.

The Poaching Quarter

In autumn one looks for a little more activity in the poachers' quarter of the country town. One may recognize this quarter by its dogs of low degree, lurchers chiefly, which prowl about the road. Gipsy blood, clear to see, runs in the veins of several men and women who stand at their open door, or sit on the step watching over the children at play in the middle of the highway, or gossiping with neighbours. This is the street where the rabbit-nets for the
poachers' ferreting are made, the women netting quite openly. Here is sure to be some one who can re-rush a chair, and understands basket-making. Petty sessions are at times quite busy and interesting through misdemeanours of folk who live here. Townsmen of public spirit would like to pull down the "hovels" of this place, and build in bright red brick "Acacia Villa," "The Limes," "Belle View." But somebody nets too sure a gain out of this little warren to think of such a thing.

It is the small landlord, the man that bought the cottages with capital penuriously pinched together from the profits of a shop of all wares, who owns and thrives on the poacher and gipsy quarter of the town. For sanitary inspection and talk about unsightly cottages he has no great sympathy. It is the outer end of the street that offends—the suburban cottages. The nearer the town the better the street. The public-houses—like the private—improve towards the upper end of the street, till finally you reach the grammar school, and respectability cannot further go.

The Bee as Robber

The patriotism of the honey bee, its suppression of self for the commonweal of the hive, begins and ends at home. There is nothing cosmopolitan about the morality of the bee. "My country, right or wrong," is the principle it acts on. We are not
THE BEE AS ROBBER

accustomed to think of the bee as robber and freebooter, yet no sooner do the stores of nectar in the flowers give out than the worker bees of many hives start on pilfering expeditions. For hours of a sunny autumn day the entrances of several hives in a bee garden may be scenes of uproar. Put down the hand to reduce the entrance to a single bee-way, and you are in danger of being stung. I have found it safer to close mine with a garden prong or a long stick. An attack is being made on the hive by a body of robbers from another hive.

Now, the bees whose stores are threatened are so excited they will fall upon and sting the innocent beemaster or anybody who ventures near. If a hive is weak through the loss of a swarm and a cast or two earlier in the year, it seems unable to repulse the attack. How do the defenders distinguish between the enemy and workers of their own hive that are constantly arriving at the alighting board with honey or pollen whilst the sack is being attempted by the freebooters? It is easy to understand how they distinguish if the freebooters belong to another breed of honey bee; say if Ligurians are attacked by natives, or the reverse; but suppose natives are attacked by natives, Ligurians by Ligurians? The bees may have some means of identifying, finer than any we imagine, but I have often noticed that the robbers, instead of settling boldly on the alighting board and rapidly crawling inside, as if they had lawful business there, hover and buzz above the entrance, or examine the ventilation holes in the
hope of getting in. By such wavering, the robber bee is sure to expose itself; and sure enough one may see the guards of the hive flying savagely at the robbers and butting them. Often a robber may be seen banged down into the grass.

The wasp wavers about the hive in the same way, and he too is charged by the guards, and obliged to retreat hastily. I have not seen robbers actually stung, though they may be at times; the buffet seems to disconcert them. A wasp, once in the hive, will not only rob but murder. On the comb he will cut in half an innocent bee, leave the head, and carry off the body.

The Loop of the Rook

In sunsets, whose chilly splendour is more like winter than summer, the murmuring rookery slowly wends home now soon after six o'clock. Sometimes, when men or women, perfectly innocent, yet objects of ludicrous suspicion, are near its roost trees, the whole rookery to a bird will settle in a grass-field a few hundred yards off, to wait till the way is quite clear. The birds are so tightly packed and so many that half an acre of green seems turned to glistening black. If one but stop to look over the road-side hedge at such an assemblage, there is one swish of wings, every bird taking the air at the same second, and the rookery is off to two or three trees in the distance, where again it waits and watches with
THE LOOP OF THE ROOK

infinite talk, the pert note of the jackdaw coming clear out of the turmoil.

I touched lately on the stately curves and glidings of the homing rooks over their nest-trees. But there is an exercise of rooks at sunset perhaps distinct from this, and full of the lyric of motion. Birds of more than one rookery have been foraging together during the day. At sunset, they spire slowly to a great height. Their wings laid flat and spread out to the utmost extent, apparently motionless, it is as though they were sucked up into the heights with no exertion of their own, or at most one slight stroke of the wing keeps the flyer going for many seconds together.

Having reached the desired height, the rooks drift apart, lingeringly divide into two or more parties, and fly away in different directions to the chosen roost trees, which now they can, no doubt, sight. But the separation does not at once lead to a plain flight home. For some minutes the rooks loop their way, each rook performing a separate loop, or rather a series of loops. Necessarily progress is slow during this stage, for the loop takes the bird backward as well as carrying it forward each time it is cut. It exactly resembles the loop cut on the outside edge by a deft and powerful skater; he, like the bird, can go on cutting a long series of loops at apparently the minimum of effort. A hundred rooks all looping at the same time in a sky flushed by sunset are truly an engaging sight. It surpasses, I think, even that thin rippling line of
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flashing black and white which peewits spread out on their travels.

If there is a touch of winter about these sunsets of September, in whose glow the rooks float and spire, how much more a few hours later, when the air is calm and clear, heavy dew beading the grass tips, the stars glittering! Jupiter, coming out of the east soon after dark, is once again in the ascendant, high in the sky before midnight, to form, with the companionable little Pleiades and yellow Aldebaran, a most beautiful bow. These night worlds have been cast, several times during the past week, on a blue, an idea of whose depth and lustre no words really convey: firmament-blue—this, perhaps, gives as good an idea of its depth as any word can.

A few majestic nights of this sky scenery, and then the filmy veil of September drops for a while, and the walker through moist wood or field, especially if fresh from train or city, is very conscious of the strong autumnal smell of the earth. There is no fancy about this aroma; at times it is as strong and distinct as that of the height of May in the hazel coppice.

Peasant Aristocracy

No account of the old English county families is complete which tells us nothing of the people in hamlet and village who have been settled in the same thatched cottage for generations. To hear some of
the talk about the peasant exodus, one might imagine that hardly a cottage could be pointed to as the dwelling-place of two successive generations of peasant folk. Villages half-filled by a shrunk and shifting population: this picture of English country life is so often drawn. Granted it is truthful in many cases, the exceptions are well worth notice. In a district whose ancient manor house, hall, and farm have housed stranger after stranger within, say, the last quarter of a century, there is often a thatched and timbered cottage where folk of the same name and family have lived for a hundred years and more. Even without special inquiry, we find tenancies by two or three generations which easily cover a century. There is a cottage in the ash tree hamlet through which I pass a good many times each year where the same family has undoubtedly lived for well over a century—indeed it must be nearer a century and a half. The head of the family died lately at eighty-six years; he was born in the cottage, never left it for any length of time, and died in it. His father, aged eighty-two, lived and died there.

So far the family history is quite clear; the oral testimony is positive. I believe there was also a great-grandfather of the present occupant—eighty or thereabouts—who actually founded the fortunes of the family in the hamlet, and drove the coach of "the good squire," a little gentleman in wig and scarlet coat, my ancestor; but I am not quite so clear about this third octogenarian. Father and son,
however, whose years total a hundred and sixty-eight, born and buried in the same hamlet, settled under the same roof and on the same plot of ground—they make something like a good old county family, especially when succeeded, as in this case, by a third generation of thrifty folk. It is a cottage with a very thick roof, owing to many re-thatchings. The wayfarer can hardly help stopping to look at its choice little garden. The picture is complete in beauty when, on a hot day, the woman comes out to the old well and lowers her bucket by windlass; what a sparkle the water has in the sun fresh from these icy, stainless springs!

These folk are rooted so firmly in the place that it might break their hearts to leave. The estate on which their ancestral home stands has changed owners twice, changed tenants again and again during their time. The "great family," under which the first octogenarian held the cottage, is still in the neighbourhood, though, alas, not so great by several thousand acres as it was. In this district, then, the oldest family, by unbroken descent and length of tenancy, belongs to the peasantry. A Burke for the humble would furnish many instances of the kind in various parts of England, though the tendency is not towards an increase in their numbers. It is people of this small, strong class who are so valuable in village life, capitalists in industry and self-respect, scarcely a penny of which is squandered in strong liquor, that terrible curse of the poor.*

* Neither noun nor adjective is a whit too strong for absolute truth.
The Echoed Redstart

If swifts, swallows, and other summer birds of passage go straight from their nesting homes in England to Africa, many species drop away, I believe, towards the coast at first by easy stages. Among these is the little chiff chaff, who, delightful to say, sings as he goes. I was visited by a solitary chiff chaff at the beginning of the month, which, a week ago, went constantly through his "zip zap" lay whilst he searched for the green flies, sometimes taking these off the tip or underside of a rose leaf by that humming-bird hover which is so characteristic of his near relation, the wood warbler. The chiff chaff has moved on, and by now the choice and lovely little redstarts have left their haunt in the woods where we watched them early in September. Their poignant, quick note of agitation, "wheet, wheet," was so strong that, uttered from a certain point on the railings, it was echoed distinctly; and one morning I had a strong fancy I could just catch the faint echo of this redstart echo. The place is no Anathoth of "hollow vales and hanging woods," but what echoes it does give are full of charm and mystery; coming from the green deeps of a lonely wood, these echoes always arrest or startle one.

Like the redstarts and chiff chaffs, the shrike is leaving its summer haunts. We miss, from the old thorns, by the unfenced road to the downs, its grey bonnet and brown mantle, its peculiar glide down
in pursuit of beetle or humble bee in the wayside turf. The shrike is a singer, and his notes are said to be sweet; but one may watch these birds, season after season, at their arrival in the spring, during their nesting, and later, without hearing their song. I have watched them constantly several summers running, and from time to time for many years past, and have never heard one note of the shrike song. I think he must be quite an uncommon singer. The redstart's song, so charming and delicate, is also uncommon; so, I think, is the whinchat's; probably many people who know both these birds well enough by sight have never heard either of them sing. The stonechat, too, is somewhat obscure as a singer, but this because his song, though constant in the spring and early summer, is short and faint.

Miniature Flower Life

The downs repay a visit early in the September night, when Arcturus flashes sapphire one moment, amber the next, and Saturn, with his sudden glow, is succeeding Mars in the south sky. A few hours sooner, too, they are full of charm, when the sun, alighting on their rim, wears that singular aspect of being not a body at all, but a round window, through which one may look into a dazzling world beyond. These are the scenes of majesty and mystery in down-land. In the halcyon mornings
MINIATURE FLOWER LIFE

of autumn the downs by comparison look tame and familiar, but in this mood, too, they are good. The yield and the spring of elastic turf are never pleasanter than in September, and here on the calmest days—days when in the valleys gossamer will hardly float—the air has its tonic.

In some high-lying heaths and commons, all the wild flower colour, save that of the deep violet gentian, has gone by mid-September, but not so in the great billowing chalk downs, where the only shelter for flowers in cold, rough weather is here and there a gaunt thorn bush with a few tufts of rough, coarse grass about it. So that plants mature very slowly here, and mill-mountain, eyebright, and common bird's-foot trefoil are still blossoming. Curious how in these downs, which convey such an idea of vast expanse and openness, the typical flowers are cast on the smallest scale! It is all miniature vegetation. The flowers hardly thrust up their heads above the short-cropped thomy turf. Where thistles grow, they are disks lying flat on the ground; scabious here does without its stem.

Most of the mill-mountain has blossomed, and presents a tiny, dried-up, but perfect skeleton, for no flower in England, after it has matured and shed its seed, preserves for some time its complete form more faithfully than this little fairy bell thing. Mill-mountain is the most fragile-looking plant that grows among those whose beauty can be admired to the full without the aid of a microscope; the very hare-bell is almost bulky when set beside it, yet it
weathers and thrives through the storms of these exposed places. As hardy as mill-mountain, and the most widely and thickly spread of these miniature flowers of the down, is bird’s-foot trefoil; this, unlike mill-mountain, is perennial, yet it ripens seeds each season in profusion. On a warm still day in summer or early autumn one may hear the cracking of its little black pods which flip their seeds in all directions and then curl up into screw form. It reminds one of the petty fusillades of needle-furze earlier in the season, or of the ingenious way in which a pansy will pinch away its seeds many inches, even feet, from the parent plant. The sowing of the small, unconsidered seed is a captivating subject—the devices for distribution are so surprising and various, the agent that conveys the sticky burr is so delightedly unconscious of the important part it is playing. And then there is the discreet plan of bribery by which birds and small beasts, in return for the fruit, will carry away and sow the seed.

"Flower in the crannied wall,
I pluck you out of the crannies,
I hold you here, root and all, in my hand,
Little flower—but if I could understand
What you are, root and all, and all in all,
I should know what God and man is."
A HARD-BITTEN FARMER

A hard-bitten Farmer

Barehills Farm is for sale, and people say that ten pounds an acre is the price at which it can be had. Thirty years ago it would have been looked on as a gift at twice this figure. I have known the farm all my life, and used to shoot over it with a former tenant, a man reckoned about the best farmer in the neighbourhood. It was said he had made some thousands out of the land in the sixties and seventies; that later, when farmers were broken in all parts of the country through the drop in the price of wheat, he still made and saved money. Not till he died was the truth known. Besides his sheep, hay, unthreshed stack or two of corn, and a bit of furniture, he was not worth ten pounds. He had no family, and his manner of life was very frugal; and yet for years past he had just won, and no more, a living out of the land. His case illustrates the hardness and insecurity of the life of a good working farmer in sheep and corn on light land. A man must "set his face as a flint" if he has nothing to keep him but a farm of two or three hundred acres like Barehills. He need be farm labourer besides farmer.

My old friend at Barehills allowed himself two sports—a little shooting, and cribbage of a long winter evening, after supper of cheese and pickles. The shooting was more than sport—it would bring something to the larder. But this was a minor
matter; the tough old farmer was eager in pursuit of sport; sport was in the bone with him if with any man, though skill was lacking. He was famed not only as a bad and testy shot, but a most dangerous one. I recollect his earlier gun, a muzzle-loader. If it chanced to be loaded at the end of the season, there was no thought of withdrawing the charge. Not even was the cap taken off. The hammer would be let down gently on the cap, and the gun set in a corner in the parlour against next season. This thrifty custom was favoured by other owners of muzzle-loaders; I can recall one or two similar instances. It never seemed to occur to those who kept their guns thus that an accident might happen. In some cases, indeed, the muzzle-loader charged and capped lent security at night to a lonely farmhouse. Rough characters would flinch at the gleam of the long barrels, even granted a chance that the cap might misfire.

The Barehills farmer would not have hesitated a moment to turn his gun on a housebreaker, though he would much rather have thrust in a great fist. His seemed to me the frame of Dandie Dinmont, his an arm with the quickness and driving force of a catapult. An ox might have gone down before the steel spring of his full stroke. What is to become of land such as this Barehills when shrewd, labouring farmers cannot wrest a living from it? It is a country problem not easily solved. The game farm
A HARD-BITTEN FARMER

experiment may often be successful, but there must be a limit to the demand for pheasant eggs, and this limit soon reached. There are limits also to fancy farming and to shooting rents—as for the latter, Barehills is hardly worth a shilling an acre. But perhaps a graver matter in the long run is the fact that a class of men of such firm character and simple, frugal life tends to disappear through the decay of this branch of farming.

The Birds in Gaol

It is a sorry thing at this season to come straight from linnet lanes to the heart of a city, and see the snared birds beating at their prison bars; the size and state of these little Bastilles of the London bird shops, crammed with innocent and useless prisoners! What an irony that we should be big with benevolent plan and policy of prison reformation, and yet suffer this refinement of cruelty to be wreaked on the most sensitive, delicate prisoners on earth! I have seen rows and rows of these prisoners at their bars to-day, thrushes with a dazed look in those great eyes, scores of linnets wild to get away, green finches in wretched plumage—all a picture of supreme fright or dejection. It really is a horror in its way—one is lured and repelled by the sight. They

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are cooped up in the cruellest of prisons—think of it—creatures whose lives in the natural state stand for all that is free and airy. Recalling it afterwards, one sees linnets all a-flutter, but the thrushes, perhaps, are worst of all—I see great-eyed thrushes that look like haunted birds.

No one who has feeling for birds, at any rate who would not have them tortured, should allow the bird catcher on his land. A caged bird is by no means always wretched. On the contrary, it is often happy and long-lived. I have kept caged birds, and intend to again. But with these snared birds the case is very different. Even if eventually the snared linnet be tamed, it goes through such terror and wildness and pining, during these first hateful weeks or months of prison life, that it were kinder to wring its neck at the beginning.

Happily there are many free as well as gaoled birds in London. The starling has established itself in strength in many parts of the town and suburbs, and nests freely there; but the large starling roosting parties which are now gathering in the trees in the parks between five and six o'clock may include many country birds and foreigners. It is fine to see the starlings going down into the large plane trees of St. James's Park, at the back of the India Office. Party after party will arrive within half a minute or so of each other, and, flying swiftly when they have reached a point high above their trees, they stop of a sudden, without
THE BIRDS IN GAOL

that hesitation which usually marks the roosting bird flocks, to drop straight down. These companies are quite distinct, like regiments, and there seem to be no stragglers; but having reached their roosting trees, they join in one great assemblage, simmering with sound; and so to sleep.
October

Downfall of the Year

By full daylight the dress of early autumn will not always stand much looking into. It is hard at times to hide from ourselves that fields and roadside hedges, to a less extent woods, are full of spoilt form and colour at the close of September. The hedges, against which the spent brome-grasses rear themselves, have begun to show the nests of summer warblers and finches which foiled the searcher in the thick of June. The most closely felted and finished nests of all, wrens’ or chaffinches’, in which there was not a scrap of moss or a feather awry, are by now in ruin. It is lost so soon, that exquisite contour of a bird’s nest, once the builder has ceased to press and smooth the perfect bowl with her breast. So the birds’ nests which the hedges are discovering are little heaps of rubbish, with no sign of art or beauty.

When the sun shines, and the sky is blue and white, we do not notice the prevailing shabbiness of leaves and stems—blackening cloverheads, brown-seeded dock, tow-coloured copse grasses. It is in
DOWNFALL OF THE YEAR

the overcast morning or afternoon that this melancholy disarray of the first phase of autumn is driven in on us. It is worst in the hedgerows. There the elder bushes, clean stripped of their blue-black berries by bird and field-mouse, have a pale, used-up look. Some of the maple trees are dusky almost to black, whilst the leaves of many maple bushes are covered with a white mustiness, as are hedgewoundwort leaves. Other leaves are smudged with indefinite hues of decay, or are dying and shrivelling up so that between the fingers they will turn to leaf-mould.

In the tunnel of green, where, a few weeks ago, crowds of jewelled insects jostled each other over the flower feast, there is a melancholy line, on either side of the path, of gaunt or snapped plant skeletons. This is what remains of the great cow-parsley and the wild parsnip avenue—mottled, dried-up tubes, with hardly a seed still clinging to their heads! Here is autumn without recompense in colour. If any hours in the lane or wood can be wholly sad, and without beauty, they come now, when the tree-green is in its dusky state.

As the day wears on and the light thickens, we cease to notice the dinginess of this and that plant or leaf, and something, if only a suggestion, of the blooms and fires of autumn appears. In this light the beech tree a little way off is tinged with ochre, and the pencilled hills grow dove-coloured. A single elm turning from green to yellow might be an elm in April turning from yellow to green. A sycamore
in a sheltered spot has already its chaste flush of rose. Another fortnight, and all but the slow oak woods will be in a glow.

The Caterpillar as Mimic

A host, immenser than that of the birds even, is on its travels: the caterpillars of many species of moths and butterflies have left their food trees and plants, and are seeking winter quarters. We find them on the roads, in the short grass, and in gardens and shrubberies, to which some must laboriously have travelled many yards from their food plants. Most of them are about to change to pupae, but the brilliancy of their caterpillar colours is scarcely tarnished yet. The use or story of this brilliancy is very far from clear. The theory is simple—the proof wholly wanting. It is this: where the caterpillar does not, in form, colour, or both, mimic leaf and stem environment, its brilliancy is a safeguard—a signal to the enemy to desist from seizing and swallowing, as the meat is evil; where the form, colour, or both, mimic environment, they show the meat is good to the taste of the enemy, and must therefore be hidden by this device.

But there is no proof that the enemy does pass by the caterpillar of gorgeous colour and elaborate pattern; there is not even proof that the enemy is deceived by the mimicry of the caterpillar which is
THE CATERPILLAR AS MIMIC

said to be agreeable food. Indeed, as to the latter, what evidence there is points slightly the other way—we see many birds finding and feeding freely on the small green caterpillars which in colour match their plant food and station; perhaps the best counter argument to this is that without the colour matching these caterpillars might be fed on still more freely by birds, and so die out as species.

Still, there is the fact that some caterpillars, boldly exposing themselves in full daylight, are in gaudy contrast with their surroundings; and what can the colour and intricate patterns be for, if not for this protection? The sex problem in caterpillar life does not exist—there can be no motive of vanity or rivalry in showing off these gauds. Again, there is, I think, the unquestionable fact that a striking likeness often does exist between a caterpillar and its station. You may see now a caterpillar that sits and feeds on the elm, which matches its environment; its grey green is that of the underside of the elm leaf; it is ribbed very like the upper side of the same leaf; and its station is now on the under, now the upper side of this leaf. Even stretched along the elm tree twig, it seems to harmonize with its surroundings. If the eyes chance to alight on the leaf or twig where this caterpillar sits, it is at once detected; the mimicry—if mimicry it be—is not good enough to cheat the prying eye of a human being, much less that of the eager, practised bird; but if the search is not close and severe, the caterpillar may well escape detection.
There is the looper caterpillar of the swallow-tailed moth, thought by some people to be the very image of the elder twig on which it rests during the day. In a book called "Episodes in Insect Life," published about sixty years ago, it is described as "a withered-looking, stick-like creature, knobbed and ringed and coloured, and even cracked after the exact pattern of the browner stalks of its native tree." Many other likenesses of the kind have appealed to collectors and watchers of insects.

We cannot overlook such facts as these, but how is it that so many of these cases of matching and mimicry are quite imperfect, even very slight? If they have been very slowly brought about by Nature through a weeding-out process—those caterpillars least like their surroundings being killed off—how comes it that to-day, in spite of the terribly keen search of the creature of prey, indifferent mimics still live on and thrive? Or if the process of selection be quicker than one might imagine, and sure, how is it that the matching and mimicry are not far more exact and deceptive in the bulk of cases than we know them actually to be? In some cases the mimicry may be really wonderful; but, as a rule, it is no more than remarkable. Once assume that a great, active law of matching and mimicry exists, and then it is as though Nature were chary of going too far with it, of over-legislating, lest her creatures of prey should be starved out—a policy of check and counter-check and compromise—a method of nicest scale and balance.
BIRDS IN THE EVENING

An Odyssey of Rooks

There are so many figures and phases in the mid-air exercises of rooks at roosting time now that I see something fresh and even beautiful almost each time I look. Lately the rooks have begun these exercises so early as five o'clock in the evening, and on and off have continued them till six. At some time in the day, perhaps the first thing in the morning, birds whose roosting quarters are at different though neighbouring rookeries meet and feed together. A sociable instinct, society for its own sweet sake, may be one reason for this gathering. When the evening draws on, the flock rises and wings home to one of the rookeries to which a certain number of the birds belong.

Here, after much mysterious preliminary, the flock divides into two halves. One stays at the rookery already reached—though it by no means settles down at once to rest and silence—the other eventually gathers itself together and goes off to the neighbouring rookery or roosting quarter to which it is attached, where its autumn day at length will end. The division into the two parties takes place high in air at a little distance from the roosting trees of the first rookery reached. How is it effected and carried through? I do not believe for a moment that there is here anything resembling leadership or generalship in human affairs. There is something which I can only call a spirit of the flock that
gradually but surely segregates the parties, in the end to send each half to its proper sleeping quarters.

The rooks hang and soar and shoot up and loop, and at times mount the empty air as if they were on some unseen spiral staircase to heaven; till at last the entire party for the second rookery is gathered together. Then away it goes in plain straightforward flight to its goal. I do not say that this is the end; perhaps when the rooks have reached that goal they cut figures and waver and hover and are as voluble as are their late comrades at the first rookery reached by the flock. But that is another thing. My idea here is that the high movements at the point of separation go on till the second half of the flock feels that it is gathered together and compact, and then a straightforward course to its proper roosting station is taken.

The Redbreast Threnody

People say the description of the robin as "autumn songster" is apt to mislead, for the bird sings as much in spring and early summer as now, though his notes are then lost in the general concert. The robin does sing at all seasons, but no less is he the master musician of autumn. His song is so attuned to the very spirit of the October afternoon that, listening to it on certain days, we have to reason out the motive of bird music before we can
persuade ourselves that this harmony between bird and season is mere coincidence.

Pathos and pensiveness are more noticeable in the song of a robin than in that of any other English bird; probably no singing bird in the world equals the robin in these qualities, though plenty of birds equal him in sweetness, surpass him in variety, power, and richness.

These two characteristic qualities in the robin’s threnody happen to be just those which we associate with the fall of the year. They are worked into the tissue of the season, and—though there are autumn hours of exhilaration, particularly in the morning during passages of brilliant sunshine—they touch almost everybody. If it is sentimental to talk or think of the autumn so, it is human nature. The pensiveness in the robin’s song is a much rarer strain in bird music than the pathos; there are several English birds with songs tinged by pathos, the nightingale and the willow warbler, for instance. The pensiveness seems to be achieved by the way in which the robin dwells on several passages in his song, performing them with slow care, with deliberation.

But I am not sure whether, even apart from this exquisite fitness between song and season, the robin ought not to be described as the autumn songster. Does he really sing so much at any other season? or, if he does, are there, at another season than autumn, so many robins singing? I doubt it. On a darkening October afternoon, we may stand for a
while at a wooded spot and hear three or four robins singing at the same time within a radius of twenty or thirty yards. The danker, mistier the day, the more the robins seem to sing. A favourite place is the edge of some wood along a lonely roadside banked and ditched deeply. It is hard to say whether all or the majority of these singers are natives, or whether there is among them a large sprinkling of autumn visitors from the Continent. By now most of the young robins of the year have gone through their moult and have red-brown breasts like their parents, if a little paler; and it is quite likely that these have already begun to sing.

The robins are said to drive away their young when these can shift for themselves, but I believe the robin after all is more tolerant than various English birds which have not this reputation for jealousy; the pied wagtail is most intolerant, scolding and buffeting wagtails which come to his lawn, and chasing off other birds of about his own size.

Pastime of Animals

One effect of soft autumn days, or of the crisp, brilliant weather we sometimes enjoy now and later in the year, is to fill many birds with frolic. Relaxation certainly plays a part in the lives of many wild creatures. An intimate account of animal games by a life-long watcher and reporter of them would be delicious—the temper of the sport, the incentive, the
PASTIME OF ANIMALS

exact appearance, the rules. I doubt whether sex has necessarily much to do with the frolic of animals. It is not safe, always, to reason from the habits of domesticated animals, or one might point to the fact that puppies and kittens play with one another regardless of sex. But we need hardly go to tamed life for evidence in this. The males among various wild creatures will whisk and pirouette and chivvy each other to the top of their bent, though no female of their kind is near, and though the season is not one at which sex influence is very strong.

By the river Lambourn, I watched a game between two full-grown stoats. The herbage of the water meadow being thick in patches, they often could not see each other easily, but the stoat which was playing the part of hare kept up an incessant bird-like chatter, so that the stoat which represented the hound might not get out of touch. The pursuit was partly by ear, partly by eye—for, though the pursuer could not possibly have seen much, if anything of the body or head, it would see constantly the jet black brush of its friend, brandished about. These stoats ran in circles, describing many figures of eight in the grass, till suddenly they got wind of me, and the game ended, the players disappearing at once.

Ludicrous as this stoat game was—a sort of babyish frolic of hide-and-seek, the hider all the while screaming shrilly and whisking his tail in the air lest the seeker might lose touch of him in the thick grass—it was sober compared with the
gambols of a hare. Once a leveret came out of the coppice to a bit of turf by the roadside, within a few yards of me. It watched me closely at first, but was not alarmed, though I moved slightly. Presently, it came even nearer, frisked and capered, now on hind legs, now on all fours, in an absurd fashion. This lasted for more than a minute. Suddenly the hare stopped, turned round, and ran into the coppice. My hare was one of the mad hares of the old saw, but the cause of the extraordinary performance is obscure. I have a note in an old natural history scrap-book about this hare dance, and can recall the incident very clearly, and the exact spot between our wood and common where it occurred.

The sport of birds at this time of year is a daintier sight, however, than that of any other animals. It seems to consist mainly of pretty toying and trifling on the wing, not chases, lightning-swift evasions and escapes, and all over and clean forgotten in a trice. Linnets and finches in their flights from field to field often engage in this way; so do rooks, which will utter as they sport the most absurb ecstatic sounds. Sunshine on autumn and winter days is champagne to rooks, and they behave at times as if scarcely able to contain themselves for pleasure.
THE BRAKE FERN

The Brake Fern

The pine wood on a sombre October afternoon is like some background in "Macbeth." The crowd of bare, straight trunks, darker and darker behind each other till lost in their own gloom, is always joyless looking—never more so than on dead-calm, slatey days in autumn. A sure charm of the pine wood is in the varying music of its tree tops; but on such days this great orchestra of Nature is mute. A wood like this seems the last place where one would go for colour and contrast at the present season; and yet in certain spots it shows now some of the boldest and most beautiful autumn effects. These are due to the brake fern, which, once it gets root-hold, will establish itself in patches even where the pines are so dense that we can barely see the sky up through them.

The brake fern is not in every spot beautiful in its autumn dress. In many hedgerows and commons, it simply dries and crumples up, and is undistinguished till, some sharp night in late autumn or winter, dew and frost combine to set on it a flashing filagree. The reason why one patch of brake fern shrivels and dies without striking colour, whilst another goes through its regular phases of October beauty, is not always clear. Probably exposure to or shelter from sun and wind and wet weather is the general cause; and yet particular ferns or patches of fern, though exposed to the same elements
as their neighbours, vary much in their autumn character.

But in the pine woods the brake fern rarely disappoints. It passes from green to pallid yellow, and then to warm brown, often each frond in a large patch going through each of these stages before it loses its perfect outline. Far from crumpling up, the whole of many large fronds, turned yellow, will lie almost flat on the air, each indentation sharply defined. This fern yellow is so pale—pale at times almost to whiteness—that a patch of bracken seen among dark pine holes will give the idea of streaks of sunlight on the ground. I have seen nothing this autumn so surprising as the light of the brake fern in the sombre, hushed pine woods. Along the brow of one wood I saw half an acre of gloom made radiant by the ferns—a glorious thing; and, elsewhere, smaller patches spread in all directions, giving the same illusion of sunlight on a sunless day.

Capercailzie, black grouse, Reeves pheasant, and the Japanese pheasant have been introduced, within the last few years, and one day I had the fortune to see all four. I heard, as well as saw, the capercailzie, which for a short time in autumn repeat the cries and the curious "spel" of the spring courting season. Woods artificially populated with wild life want the true charm of those stocked by Nature alone. A plain native is better than a host of splendid aliens. Improvements on Nature in her own domain are mostly meretricious. Yet I admit
the capercailzie in the great pine wood suits the scene.

It is good to flush this bird from the ground or fir tree and watch its bulky form in strong flight. A capercailzie flushed at the edge of a broad path through the pine wood will sometimes fly straight along the path and settle again in a tree at its edge; and will repeat this if followed and flushed a second—even a third—time. Both capercailzie I flushed were hens; two black grouse which kept each other company in a grassy open spot among the woods were young cocks, for in the autumn there is a division of sexes with these birds; the males leave the females and form a flock of themselves.

What is the meaning of this separation no one can tell. Surely the separation cannot make society more agreeable to the black grouse or the life of individual or flock more secure. With most English birds the sexes are mingled during the flocking season; it is so with starlings, linnets, skylarks. But with migratory chaffinches there is an exception. Some of the flocks of chaffinches seen in England during the autumn and winter are made up of hens—though some young cock chaffinches, which have not yet put on their full plumage, may be included. To this separation of sexes the chaffinch owes that Latin name which old Linnaeus neatly gave it—cœlebs, the bachelor. It might have been given as appropriately to the nightingale; for male nightingales, also travelling in sexes, reach us, it is said, earlier than the females. The thought
occurs that the male birds thus find quarters for the nesting season, and, beginning to sing at once, attract thither the hens, when these arrive in our woods and spinneys. It is a pretty idea, but I am afraid there is no proof that it is true.

A Village Herb Doctor

Until quite lately, there was a little herb shop at the country end of the main street of the market town. The owner could not make a living by his cures and simples alone, so he combined the business with one or two other small ones. But the shop has gone; to find another of its kind, one need travel twenty miles to the county town. There are still a few herbalists in the small towns, but each census must show a lessening number. The owner of the little herb shop in the market town was no impostor. He believed firmly in his cures, which he gathered himself, chiefly on a Saturday afternoon, in the fields and lanes. There was no doubting his sincerity after one had talked with him a little. He held that the cure by the virtues of wild plants, far from being in its dotage, was but in its infancy. He was enthusiastic about the wonderful remedies for suffering which the herb would presently offer, and trembled modestly on the brink of some benign discovery. I think the village dame, famed more than half a century for her herb lore, has gone too. Now by faith, now by virtue of the herb, or a little of both,
A VILLAGE HERB DOCTOR

her cures did sometimes serve. Her dispensary was in wood, garden, and common. On the common she gathered her favourite remedy of all—the little pink gentian-like flower out of which she brewed centaury tea. Bitter as that cup was, I doubt whether it was more so than the tea she drank herself every afternoon-tea, which stewed and stewed on the hob until it was almost black and tremendously strong. Centaury was her betony, a perfect all-heal.

She practised a little innocent witchcraft too, charming away warts and such-like. She might remind one of that class which in old time wove delightful fairy stories round the wild plants. For instance, why is the devil's bit scabious so called? Because the devil, annoyed by its benefits to men, bit a piece off its root. Then there is hawkweed, which gained its name because hawks employed it to strengthen their eyesight. I dare say that a few of her remedies, though she knew it not, were based on the ancient fantastic "doctrine of signatures"—that plant, which bears some fancied likeness to the complaint or part affected, to be used as a cure.

The Death of Animals

Nothing about the wild creatures around us is more secret than their death. I cannot bring myself to the comfortable theory that, as a rule, the natural end of the bird, beast, or insect is euthanasia, just
a dropping to sleep, and then the lull of Lethe. That desperate creeping away of a hard-stricken or diseased creature to a dark place wears a sinister look. True, there is nothing to show that any living creature—wild or tame—except man, recognizes such a thing as death. The theory that the ox knows it on his way to the shambles is fanciful; could the "shepherd's chief mourner"—his dog—really have mourned because he knew the master dead?

But, on the other hand, there are signs in some animals of an awful shrinking from this unknown, unrecognized thing; whilst, as to actual physical pain, there are many signs of this, too, in the last passages before unconsciousness. It is rarely that one sees a butterfly just dead, or in the act of dying "naturally," but I have known of two or three cases. Strangely, whilst searching last August for purple hairstreaks in an oak wood, I saw one of these butterflies jumping about at the foot of a tree. I took it in my hand. It was dying; a few more of these convulsive jumps, and it would lie still enough. (A grayling butterfly was picked up near the same place: it was seen to fall from a tree, and was dead in a few minutes.) The movements of my hairstreak may not have been those of pain, but one could not feel sure—they were not good to see.
THE RED HAWK

The Poetry of Flight

When the breeze freshens, the glorious red hawk will point its quarter, will veer with it true as any vane. We may see him glide down wind over field and heath, making all the blackbirds, at their feast of hips and haws, chink and chatter, the lark and partridge crouch for life. But, moving so with the wind, suddenly he will stop and swing about—a turn accomplished with utter ease and in a space seemingly not larger than himself—and then, head pointed straight into the wind, hover for a quarter or half a minute over a spot every foot, perhaps inch, of which he sweeps with a terrible eye.

The hover, the stillest part of it, reminds one of some triumphant balancing feat, a miracle of accuracy, a dancer at a giddy height poised on the rope with arms outspread; and indeed perfect balance is no mean part of the aerial equipment of a bird. Nature, in the making of her winged masterpiece, set the centre of gravity in the right place to the shaving of a fraction of an inch.

Yet balance is but one side of this wonder. How does he keep afloat, near to absolute stillness, by such small play of the wing? His strokes are often so slight during the hang or hover, they look far more like balancing than upholding movements. It is not surprising that the wind, blowing hard and straight at the hawk, fails to shift him; for he is built to offer the least resistance to the wind.
Hovering, he presents to the wind but a knifey edge of wing; and, for his body, this is shapen to part, not arrest, the current. So the wonder is not how he resists the wind, but how he does not drop when thus poised, and moving his wings scarcely at all. How can he float in the void, upheld only by the light, elastic air—a thousand times lighter than the water beneath the cliff where he has his eyrie?

There is no deception for a true eye about the hover—the strokes of the wings during the stillest part of the feat are very slight. This is not so with the hover of many birds and insects. The gold crests are frequent hoverers. I have watched them lately hovering two and three times in a minute, to take insect food slung beneath a twig which they could not otherwise reach, and the strokes of the gold crest's wings in such cases are—for the relative sizes of the two birds—fuller than the wind hovers, and, I think, more numerous. The gold crest indeed can only poise itself in the air by quick full wing strokes, and the exertion must be severe.

Viewed without knowledge of the form and mechanism of a wing, the strokes alike of red hawk, gold crest, and hoverer fly appear simple up and down movements of a slightly curved, or even flat, instrument. But we know that the wing is really in shape a kind of screw, which by no means rises simply up and down when in action. It must pump and work the air, draw it up, suck it down, cause with each stroke that disturbance by which alone the body of the flyer can be upheld.
The Poetry of Flight

Thus every flying thing, from albatross to midge, rides on a storm of its own creation.

I believe Mr. E. C. Malan, in the poetical, charming notes on "Soaring," which he gave me some years ago, was near the truth. "The air, when divided by a bird, is thrown into a state of anguish, which is not the case when it is perforated by an arrow, and this state of anguish is the excellent and most simple secret of flight. For the air that is divided by the bird's body does not pass away on either side of it in a harmless stream, but forms the beautiful useful eddies under the outstretched wings, which act as screw jacks, and literally screw the bird up higher and higher. Thus we should see, if our eyes were sharp enough, two large footballs of air under a bird's wings, winding, winding, for ever winding, and screwing, screwing, for ever screwing, so as to support the bird, and continually to raise it higher and higher." Anguish he defined as "the snake-like, curling, writhing, enfolding action, with many contortions and convolutions," which in a twining fluid is familiar to us all. That it is easier for the hawk to hover whilst he is facing the wind is clear by the way in which, flying with the wind, he will turn round and face it when he desires to be stationary over a certain spot. But I believe that it is only when the wind blows moderately hard that the hawk can hover in it; when it is half a gale, he scarcely attempts the feat. Nor in such a wind does the humming bird hawk moth venture abroad. The highest winds paralyze most winged creatures; birds
THE FAERY YEAR

will huddle in a thick hedge for hours at a stretch during a savage gale, and can hardly be driven into the open.

A Treasury of Titmice

The titmouse assembly in the woodlands has received its autumn complement of gold crests, and on a radiant October morning is the sprightliest display of minute bird life. In one flock, in a Midland wood of beech and larch, I found dozens of gold crests, cole and long-tailed tits, with the usual sprinkling of marsh and blue tits, ox-eyes, and a few tree creepers and nuthatches. The flock would be composed chiefly of natives; but many of the gold crests were probably visitors from oversea, whilst several cole tits, bolder and brighter in dress than the ordinary English form, looked to me like strangers. The titmouse flock is one of the most familiar features of bird society in autumn and winter, and one of the prettiest. It differs from most other flocks in this—the birds which form it vary much in food and habits. Two titmice—the cole and marsh—are seed as much as insect eaters.

Now the cole tit is enjoying the mast or nuts of the beech tree; the marsh, the blue, and the great tits also eat this mast, but scarcely, I think, with his keen relish. The cole tit may not be quite so dressy as the marsh tit, whose jet cap is the braver, but he is a choice little thing. His flight, as he
searches for the beech nuts on the ground and carries them up to his branch, is so natty—a flip and whisk of black and grey! Never in repose from the moment he wakes till the moment he roosts, even for a titmouse the cole tit is restless. The ox-eye in April and May will stop to sing, the cole tit never.

To be awake, with the cole tit, is to be a-wing. Call note, alarm note, courting note, whatever it happen to be, is uttered by the cole tit whilst he is darting from twig to twig, or raining down blows of Lilliput on the beech mast shell, or curiously searching for tiny grubs and chrysalids hidden in the scurf of the bark.

The ox-eye sometimes utters his whetstone note during moments of comparative repose; the cole tit has in season a whetstone note, a baby kind of one, but he gets it out whilst doing something else. The ox-eye, when approached too closely, will stop to observe and scold the intruder. A cole tit stops to observe nobody. He is off in good time when danger comes close, but until the moment of his going, he seems never to attend to any intruder.

It is the same with the long-tailed tit, which pays small heed to human beings. You think you can almost insinuate your fingers into the bush and lay hold of a long-tailed tit, he is so unobservant. But there is this difference between them: the long-tailed tit gives the idea of being rather stupid, a baby of a bird, all swaddled in feathers, very pretty indeed, but not quick-witted; whereas the cole
tit seems as sharp as a needle. One might sweep a long-tailed tit off the tip of a twig into a butterfly net on a longish stick—one would not set out with much hope of catching a cole tit so.

Ruse of a Brown Tail

If no animal, wild or tame, can fear death—ignorant that there is such a thing—the expression "shamming death," applied to birds and insects, is misleading. We should not say, then, that the magpie moth, humming bird hawk moth, wryneck, and brown tail moth sham death when they lie still and like dead things in our hands. The magpie and the brown tail moths will lie so when scared or captured. A brown tail moth which I picked up would not use its wings when I tossed it into the air. It fell to the ground, exactly as it chanced to fall it lay, indifferent whether it were on its back, its wings, or abdomen. The sleepiest butterfly, dropped to the ground, will move its legs, if ever so little, to cling to something; the brown tail's legs never stirred.

Many a caterpillar, interrupted in autumn travel, will curl into a circle, the armadillo woodlouse will roll into a pill, to lie absolutely still for a little while. In what degree, if any, the ruse is the result of some dim reasoning process in the practiser we cannot know; but whether the moth or bird be pure automaton or not in this, the explanation of
RUSE OF A BROWN TAIL

the act must be protection; to be dead-still, to be contained in as small a compass as possible, is the best hope of escaping the notice of the creature of prey.

The Yellow Wood

The elm is not the only tree of autumn that can recall the tree of spring. A touch of the primrose yellow which dyed the oaks of Sway in spring has been on the distant wood of late—the "primrose of the later year is not unlike that of spring"—whilst the birch plantations have had something of the flush and burn of trees just coming into tiny leaf. These likenesses of its prime in the falling year are always more striking when the sky is overcast, or in the grey of afternoon; and these are the hours, too, when the whole colouring of autumn is seen at its best.

It is when the sun is not shining on the woods that the finer shades, often mere suggestions or hints, of colour are enjoyed most—they disappear in a strong light. These are the autumn colours and shades, almost endless in variety and gradation, which lie about the tops and outsides of the trees. They are the complexion of the wood, as seen by a watcher at a distance.

Under and within a wood fully fired by the autumn, the effects are wholly different. Here is no reminder of spring; unless it be of spring lightness
and brightness—for some of the woods, when oaks and Spanish chestnuts are the chief trees, and the undergrowth is brake fern, have an almost fairy-like lightness about them towards the close of October. It is the least substantial pageantry. The heavy foliage of summer has been thinned, and the leaves that remain on the trees are yellow or pale brown.

The deep green of darkened oaks and great notched leaves of chestnut has given place to a colour which, like pallid brake fern among the pines, has almost the appearance of sunlight. So, on a day in October grey, from dawn till dusk, the Spanish chestnut and oak woods, to one who walks through them, really appear to be lit brilliantly. There is such a wood on the Buckinghamshire sand-hills. A fortnight ago the scene inside this wood was one of strange conjured beauty on an afternoon quite grey and sombre in the roads and open fields. The brake fern had not taken on its full brown of autumn, which is about the most sober of the distinctive colours of the season, and the trees were turning so fast that many had no more than a faint stain of green. The mountain ashes were pure yellow, the horse-chestnuts too; the Spanish chestnuts were far more yellow than brown, and so as yet were most of the oaks and maples. There were none of the red or high roseate hues of spindlewood, cornel, sycamore, or wild cherry tree, or the flames of the beech. The result was a yellow wood—yellow on the twig, yellow sprent with light brown
THE YELLOW WOOD

on the pathway, yellow rustling or spinning through the air as each breeze played through the trees. By now, no doubt, the oaks have gone mainly into plain brown, and the chestnuts cast most of those noble leaves; the season, which in such a wood, with favouring weather, passes almost everything through a mint of gold, is soon done. But it is a scene strong in the memory once enjoyed on the right day in October.

With trees and underwoods stripped bare in November, rain and a heavy frost or two usually ending the work, what we think of as autumn colouring is over. But there are lesser wood scenes of much beauty during the next few weeks, particularly one of brake ferns and spruce firs, where these together make the undergrowth. Spruce firs have not the stern nobility of the Scotch pines, or the exquisite green of the larches in spring, but as young trees, scattered through a wood in autumn and winter, they surpass both, perhaps all other firs that flourish in England. Masses of the sober brown fern among the bushy, fresh green spruce firs in November form a delightful wood scene.

The spruce fir is the cosiest of evergreens, with kind quarters for squirrel and bird on bitter nights. It is not a native, like the pine, whose remains, black as bog oak, we find deep in the peat; but it does not offend the eye even in the wildest spots by a look of the artificial. After yew and pine, spruce has come to be the most English of evergreens, and both for the look and the reality of warmth and
shelter in the cold season it is better than either. It has, too, a beauty all its own when re-leafing in the spring and early summer, in its two distinct shades of green.

**A Housewife's Herbs**

Many of the wild thymes and mints linger in bloom till late autumn. I have found solitary plants of wood sage flowering in November, and this season the faint purple blossoms of common calamint are still seen on sunny roadside banks. Calamint, like basil thyme, is very aromatic. Bruised between the fingers, it gives out a fragrance equal to the marjoram's, if not quite to the citron-scented thyme's, which in some places grows wild. In old days, when to be the good housewife was to be versed in the virtues of a hundred herbs, calamint was brewed into a tea. To the wild basil the housewife looked both for cookeries and cures. Its volatile oil she applied to the "carious tooth," its spice flavoured the food.

Calamint and basil have gone out, not because they have been shown to be without efficacy, but because other pot herbs as good or better and other cures quicker and surer have come in. It is the same with hundreds of old-fashioned uses for wild plants. Sorrel they used at the cottage, even the comfortable farmhouse perhaps, for a salad. Lettuce seed is too cheap to-day for the
A HOUSEWIFE'S HERBS

lowliest villager to search for sorrel, even though it made as good a salad. "Good King Henry," once the wild spinach of the English peasant, is rarely heard of now—though still grown under the name of "marcy" (mercury) in Lincolnshire cottage gardens. There is a plant not seen in all wet meadows, but common enough in some, the snakeweed or bistort, with rose-coloured flowers. I found it by the stream, and was reminded of its ancient fame. It was the "all-good" of simple village folk, who boiled and ate with relish the young shoots; besides, its roots, full of starchy matter, have been counted good food. Many plants in old England were esteemed by the housewife, though they yielded neither food nor medicine. There was sweet gale, golden ozier, which I found scenting New Forest bogs in May. In the north, the peasantry made beds of the twigs of sweet gale, and scented their clothes with its leaves. Of the purple melic grass stems the countryman would make his besoms—perhaps where birch trees were not plentiful. By the black juice of the common horehound the gipsy once darkened her skin. The cow-parsnip was food for beast—in some places for man even. The common heath furnished thatch for the cottager's roof, the dried flowers of the carline thistle (expanding in dry, closing in wet, weather) did for barometer, and so too wild oat-grass. An odder use than these, pertaining more to sport than domestic economy, was that of scantily equipped
anglers, who fished for trout with the oat-grass flowers instead of with artificial flies!

In cure, or condiment, or foodstuff, our country folk may have lost little or nothing by modern neglect of wild herbs. The standard of country comfort, if not of health, has risen since the days when such country economy was in practice. But there has been loss of another kind. There was virtue in the simple studies passed orally from generation to generation. It availed in the forming of character; it made people attentive to the gifts and stores of nature around them, careful in small things. I think it must have made for kind memories and reverent thoughts; the use of a wild herb, the seeking and gathering of it for cure or cookery, would often bring to mind—not without a pang—the stilled lips from whom the secret came. This was not the kind of education they liked at Coketown under Mr. Gradgrind; but some people think that life would be none the worse for it in England to-day.
NOVEMBER

A November Night

The country home which is placed to perfection commands a view of sky as well as landscape. In full daylight we want to enjoy from our window the view of distant hill and valley; but after the grey and purple of these are veiled by the dusk, a great sky stage should lie open around us for the drama of a clear night. With November, the time is near when the star and planet scenery is grandest. With all its entrancement, the summer night wanted Orion and the lustre of Jupiter. Now both are in the eastern sky at an early hour of the night.

In a city we can only expect to see the open sky by fragments above us—there is hardly any view of sky around, nothing worth calling an horizon. But it is not only in cities that a view of the sky is baulked. It is often the same in true country places. Plantations and outbuildings hide the rise and set of star and planet. Neither from the upper windows of the house, nor from terrace or walled garden, can we always enjoy a wide sweep of open sky; to have this we must go to the high-lying common or to the peewit marsh.
THE FAERY YEAR

Those who design the country home, large or small, and lay out its grounds, rarely consider anything but landscape, or, if it is near the coast, seascape; but, even if they did, it would often be necessary, for warmth and comfort, to screen the quarter of the sky in which Orion begins to be so glorious on November nights, low down on the east, lying almost prone, with his feet just clear of the dark rim of the earth. Perhaps the best twelve hours for sky, wood, and water colour and contrast at this time of year are those from which the sunshine is almost banished. First we have a louring afternoon sky, a pall, whose exact tint and texture the dead-calm lake in the pine-woods will copy.

On this water the swans float angel-white, and are so sharply figured that they look as if they were clipped out. There is no suggestion of fluff or feather about the swans, with their proud necks, at a short distance. The snowy swan on the leaden lake is a dark day contrast by which we are sometimes struck in summer, but it belongs, I fancy, of more right to the autumn. A gleam of sunlight or ripple of wind on the water, and it is spoilt.

At sunset the great roof of cloud is dispersed in a heavy rain, which beats to the earth and water all the particles that float in the air—the fine unseen dust of the skies—and leaves an atmosphere of exquisite clearness. Then it rapidly darkens, and the rising stars in the north and east bicker on a blue that is nearly sable.

Through such a refined atmosphere, ordinary
A NOVEMBER NIGHT

field-glasses bring a host of new worlds into sight. The flocked Pleiades, seen through the glass, glow intenser than the brightest star in the firmament watched with the naked eye, intenser than white Capella or restless Lyra at its bluest-brightest; and instead of seven Pleiades there are now nearer seventy in a marvellous cluster of spheres. Jupiter, whose ordinary feature is steady glow rather than diamond flash, appears in the colours of the prism, and the great nebula in Orion is seen distinctly, though lifted as yet so little above the horizon. They make the early nights, the gemmed nights, of November among the richest of the year, when the air is free of cloud and earth mist.

Song and Sex

I cannot understand how anybody can watch and listen to English birds for many years, and yet hold that their songs are always connected with courtship and rivalry. Spring, when the sex passion burns intense, produces more melody and finer than other seasons; it would do so even if its volume were not swelled by the songs of millions of warblers which are absent from England in autumn and winter. But when we observe and listen carefully during autumn and winter, we find that there is really a great deal of bird music which does not spring from sexual motive.
Dr. Japp—whose ardent letters to me on nature, written from a bed of pain and sickness, I have been glancing at—told me that years ago he put it to Herbert Spencer that birds will sing from a variety of joy-impulses. He referred to robins, water ouzels, and other birds singing even in mid-winter, during transient gleams of sunshine. Herbert Spencer replied that he was sure there were good reasons for rejecting the theory that song was simply sexual. He reminded Dr. Japp that there was "abundant disproof of the Darwinian view" in his "Origin and Functions of Music," published in the earlier two-volume collection of essays. If Darwin had watched English birds in the woods and fields from August to February, when the courting season begins in earnest, he would, I believe, have concluded that many sing earnestly and often without thought of mates or rivals. Take the hedge sparrow and the wren. True, the hedge sparrow is mostly seen in autumn and winter with a mate; I incline to think it pairs for life; but there is no good reason to suppose that it sings in November or December to please its mate or to ensure its position against rivals. The same with the wren, whose dainty ditties at this time are hardly inferior to those he gives in April or May whilst he is nest-making. Cock wrens that are paired now, and going about with their mates of last spring, sing merrily on dull days as well as bright; and so do many unpaired wrens. There is no real sign of competition or jealousy for mates about these lyrics; they do not
SONG AND SEX

lead to fighting; all things go to show that they are the result of pleasure in life or pride in song, and that the sexual emotion is here not the incentive.

The singing of the unflocked starlings, the few stay-at-home starlings, practically throughout the year—mine only cease, perhaps, for a few weeks during their late summer or autumn moult—the occasional pipe of blackbird in October, the constant carols of the thrushes this month and often next, all are exercises, I believe, of joy unalloyed with purpose. The skylarks, which in some seasons fling into their October songs a revelry that recalls skylarks at May dawn, I put in the same category; and no doubt the woodlark and the redbreast should be put there also.

When a great flock of linnets in late summer suddenly breaks into song, we cannot seek in sexual motive an explanation; this is the most strange and wonderful of all the bird melodies; it is as though it began and ended without intent, melody as free from purpose in the musicians as the lyrics of winds and trees and waters. But here, and perhaps in the evening chant of the starling host, we are on difficult ground. These, in their atmosphere of mystery, may always remain to us as incantations of nature.

Society and Safety

Does the habit of flocking common among insects, quadrupeds, and birds tend to the safety of
the individual? It has been often said that it does, and some people even believe that solitary species must in the end be wiped out. Society, they argue, means higher development and preservation. The case of birds particularly is cited. By gathering into companies in winter, birds are better able to find food, to guard themselves against foes, to be warm on bitter nights. When one of the titmice of a roving band lights on a place abounding in food, it promptly, by its notes, tells its companions, and they can hasten to the feast. It is quite likely that there are words in the titmouse vocabulary which have special significance to members of a flock searching for food from tree to tree. In the chatter kept up throughout the day by a flock, there are certainly call notes and warning notes. Why should there not be food notes? Many a meaning may be in a titmouse sound.

As to warmth on bitter nights, some birds, I am satisfied, cluster together thickly for this purpose. But safety is another thing. To watchful and wary birds, such as rooks and pigeons, does flocking bring additional safety? Is the bird in a flock safer than the bird by itself—or with one or two companions? It is rather an open question. In a flock of, say, three hundred shy rooks feeding in a field there are three hundred sentinels. The idea that rooks set sentinels is quite fanciful—I have never seen the least sign of such a habit in rooks or any other bird—every bird in a flock is more or less a sentinel, though he has never been appointed to the post.
SOCIETY AND SAFETY

With three hundred pairs of eyes looking in all directions, should not a flock be far harder for a foe to approach than a single bird or a small party? Yet, in practice, a single wary rook seems as hard to approach as a flock of three hundred rooks; and my experience is that pigeons and other birds are the same in this.

Watching, perhaps, becomes less arduous when there are so many to watch, so there may be convenience in numbers, even in those cases where there is not increased safety. Sometimes numbers must actually help the creature of prey, which can wait on a flock and pick off members of it as they are required for food. In large gatherings of insects, such as grasshoppers of several species, which I have watched this year, safety cannot be often, if it is ever, the bond of union. It is doubtful whether safety can be the bond of union among caterpillars that live on the same web—sometimes club together for the winter, as do the grubs of the Glanville fritillary butterfly.

A Poacher in Petticoats

For generations to come, the deeds of "Buck," our poacher in petticoats, will be discussed in the group of villages where her grotesque figure was so familiar. Rabbits are great talk for hamlet folk—and about this strange woman there was a very romance of rabbits. To many sportsmen one rabbit is just like another. I never stopped to criticize a
rabbit that I shot, being, for one thing, unable by eye and finger to judge its merit or demerit for the table. But in thorough rabbit districts the villager is quite a connoisseur in conies. When a rabbit slightly above the average in fitness is shot or snared, it is often remarked on. Village sportsmen can hardly shoot a rabbit without discovering its excellence—"a fine rabbit too" is the frequent verdict. Others, who do not shoot or beat, have something to tell each other about the rabbits in a particular field or spinney.

When parish councils were set up, some villagers, who were "no hand at reading," and looked for oral information in these things, believed they would at length have all the rabbits they chose. The new measure was welcomed accordingly. Enthusiasm waned rather when not a man in the village was found to be a rabbit the richer.

This interest in rabbits of itself might explain the fame of Buck; but, besides, hers was a strong, singular personality. She had retired from the business some time before she died about a year ago, but her fame had scarcely lessened in the neighbourhood. To-day, when the leaf is off and rabbit shooting in full swing, we naturally talk of her. This resolute poacher had been to gaol two or three times for refusing, or being unable, to pay her fines, but she was no wastrel. She tried to keep the bit she made by poaching, but her first husband was thriftless, and once, when she was in gaol, he sold and drank away the pigs which she had bought out
A POACHER IN PETTICOATS

of her poaching profits. Buck was the daughter of a gamekeeper, and learned most that she knew of game and snaring it by going into the woods with her father in girlhood. She was a match for any male poacher in wiring game, furred and feathered, and worked her ferrets with skill.

She had a gun, and the nerve to go into the copse after dark to shoot roosting pheasants. The sound of the pheasant poacher's gun at nightfall used to be heard more often than it is to-day. The risk was not so great as one might suppose, save where keepers and watchers were numerous. The old muzzle-loader was carried in pieces, hidden in deep coat-pockets, and not fitted together till the wood was entered. It did not make much noise, for the poacher loaded very lightly with powder. He was near his game, so a full charge was not needful. The result was a kind of muffled report, and in the midst of woods I noticed that this sound was hard to locate. Charles Waterton, to torment the poachers and waste their powder, had wooden bird dummies nailed on his trees. I doubt whether a complete poacher like Buck, nothing if not wood-crafty, could be cheated so.

Outwitting the Stoat

The stoat and weasel, with all their effrontery, cannot face a ferret in a rabbit-burrow. Though
the fugitive, scared by the ferret, leaves the rabbit-burrow in high haste, it contrives always to thread its way through the net. The keeper says he never yet saw stoat or weasel enmeshed. Once, knowing that a stoat was in a small burrow he was ferreting, he spread three nets instead of one over the holes, yet even through this trebled mesh the stoat went scot free ere he could strike it. Faultless instinct tells the stoat to fly the ferret, for where ferret fastens it holds. There is one time at which a stoat might face a ferret—when she has young; but she would stand no chance. The keeper knows much about the stoat, its daring, and its devilish device. If you disturb a stoat dragging or carrying its prey, it will usually return in a short time. The keeper disturbed a stoat carrying a young rabbit. It fled into the bushes; the keeper hid near by and waited, his gun ready. Suddenly the stoat thrust out its long neck and dragged the little rabbit into the undergrowth: it was so quick that the keeper had not time to take aim.

Next time he surprised a stoat thus, he tied its prey by a bit of string to a stem. The stoat soon popped out of cover, and tugged at the prey, giving the keeper time to shoot.

How do stoats and weasels catch birds out of the nesting season? I have never seen this done, but the keeper has twice. In full daylight he saw a stoat spring from the wood and seize a pheasant in the lane. Another time he saw a stoat dart on a blackbird by the pond. It was morning twilight,
OUTWITTING THE STOAT

and birds when first aroused are dummel, or foolish, the keeper says. But there is some evidence that stoats and weasels can wile a bird off the bush by acrobatic display.

Mr. Booth was one of the first naturalists to describe the capers which weasels will cut to a gallery of excited small birds. Most watchers of stoats and weasels have seen some capers of the kind; but does the player perform with the set purpose of luring his intended victim, and, by insinuating himself nearer and nearer, get at length within striking distance? If so, what a dance of death!

I doubt, anyhow, whether "fascination" is quite the word for the effect the dance has on spectators. Birds will show an excited curiosity towards odd movements in the animal world, even though the object of their attention be not a creature of prey. My capering hare, espied by small birds, might soon have had a twittering gallery. A wild creature in a trap, or other evil plight, or fighting, will be excitedly watched by other wild creatures. It is not hard, then, to understand why a twirling, tumbling stoat should draw a crowd. If, however, he is often seen to end his capers by clutching a spectator, this points to an elaborate villainy and a cleverness surely without parallel among creatures of prey. The thing might occur now and then and yet the weasel or stoat not be dancing with premeditation—in the midst of the dance the performer might unexpectedly see a bird within reach and grab it. But if we find that the dance often ends in
bloodshed, or even in a wicked spring by the performer, we must conclude that the whole business is planned.

Mobbing the Brown Owl

Leaving his perch near the dark top of the spruce fir, whilst it was still light, the other afternoon, and uttering his grand halloo, the tawny owl was promptly mobbed by dozens of small birds in the shrubbery and the edge of the wood. There must have been half a dozen missel thrushes in the crowd. What with their policeman's rattle and the black-birds' metallic chinking and the chittering of a shower of saucy tits and frantic finches, there was a hubbub of birds round the owl. They even pestered him whilst he sat still after his first short flight, and when he stirred again the uproar was doubled. The missel thrushes were in the van, all but striking the owl as he glided from evergreen to evergreen. This mobbing of the tawny owl is a frequent event. It is his habit, in one place I know, to move abroad now at about half-past four, and he announces it by a loud cry. Some small bird sees him move, and cries out indignantly—the cry travels like electricity to birds of various species a hundred yards or so around—they gather instantly. I should doubt whether the missel thrush has much reason for wrath against the tawny and the barn owls. Perhaps a missel thrush nestling may now and then fall to an owl, but not
MOBBING THE BROWN OWL

the grown bird. It was droll to find last week even a jay half joining in the hue and cry—a pretty thief to catch a thief.

The Starlings' Eve

The celebration of the wintry eve by wild birds is often marked by beautiful and mysterious rites. There are the spiral evolutions of the linnets, which will be repeated many times on a cold, clear eve before the birds drop to their bushes on the common and twitter to sleep. There is the drill, dead-perfect, of the black-whirring army of starlings. In some districts there are starlings not subject to this conscription at the roosting hour. These, I believe, are the older birds, which in seasons past served their turn, and will now stay at home and sleep beneath the eaves where they nested in June—the friendly starlings, which, with heads upraised, and throats distended, give us delicious medleys almost every autumn and winter morning. But in some places even these domestic starlings are drawn into the evening concourse, and go off for the night with the seething multitude to the reed beds or plantations.

By four o'clock the starlings are gathering. A bare ash tree, a field distant, appears black-budded with starlings; their murmur—absolutely even and composed of sounds as little and close together as those which make a hiss—is carried half a mile. A little later, regiment after regiment of starlings flies
up into neighbouring trees; each regiment flies up as one bird, murmurs that strange sing-song as one bird, and flies off as one bird to the chosen reed bed or plantation. It is like a march-past after manoeuvres of an army dressed and drilled till it moves with the precision of a machine.

Finally, at the grand gathering-place all the regiments will be thrown into one. Chaos seems to prevail. But, if so, it is cosmos again in an instant; for—every starling in the reed bed rising with a rush of thousands of wings that are as one wing—the host will go through its wonderful figures in the air with the rhythm of faultless order. No army of men that ever took the field could surpass the leaderless one of the starlings in this.

After the starlings at eve, there seems little enough of ordered array about the pheasants going to roost. However many pheasants there be in a wood, each one seems a free lance. A dozen may go up into the same warm tree, crying loudly, but each pheasant goes independently of the other. There is no spirit of the flock among the pheasants, though a strong desire for society by dark and by day. But when we watch and listen to pheasants at dusk, we find they have a distinct roosting habit or etiquette of their own. The voluble cock pheasant, the keeper says, will go up first, the quiet hens following a little later; and, when a hen bungles up into his tree or a neighbouring one, the cock bird will often acknowledge the event by a crow. This is not always the last crow of the night; if it thunder
THE STARLINGS' EVE

by-and-by, many of the pheasants will awake and call loudly. At ten o'clock one night lately it thundered, and the pheasants answered each peal with a loud crow.

The Last Ravens

It is delightful to prove the truth of a floating village tradition about some ancient custom or rare animal. At Tangle Clumps, ravens, according to one or two old folk, nested many years ago. The gaunt pine trees, searched through by the north wind, have yet reached a considerable size and height; their dark tops look the very place for a raven's nest. But no raven has been seen in the place since I can remember, and I half doubted the tradition, till lately, when I have had letters from a former rector and curate of parishes in the district. They prove that the old folk remembered rightly. The curate, writing to his friend about "Wild Life in Hampshire Highlands," says: "Dewar writes about Tangle Clumps without any mention of ravens; and, now I come to think of it, I seem to have heard that they forsook the spot, and never nested there again, after their young were taken, at my instigation, in 1862. That business is on my conscience. I have to this day a lively sense of the pained surprise which came over me when my wretched accomplice appeared before me with those three young birds. I had thought it impossible for
any man to get them.” The rector writes to me: “I am sorry to say that I myself had one of those young ravens. I need hardly say it was not foreseen that the ravens would forsake the clumps in consequence of the act.” It need not lie very heavy on the conscience of a man that half a century ago he had a hand in the taking of some young ravens: the Ancient Mariner might have been shriven before now of such an act. Birds’-nesting was not quite the crime it is to-day; moreover, a pair or two of ravens must have been harmful from time to time in such a lambing country. Though I never saw a raven in that wild scene, I recall something almost as good. One winter day I watched quite four dozen carrion crows calling to each other, and gathering for the night. In those days I could, as a birds’-nesting boy, get as many carrion crows’ eggs in April and May as I wanted. To-day the feeling against the lesser raven is so strong that its extinction, in many of its old strongholds inland, is certain. But there are beetling cliffs by the coast, which nobody scales and robs, where both crow and raven can rear their young in safety.

The Oak Wood

The oak wood gives the final scene of autumn glow and colour, and this month the oaks surely have been richer than for years. To-day the trees have passed their prime, and, indeed, are growing
THE OAK WOOD

bare as the ash tree or the lime; but there have been hours during the last fortnight at which the scene has been a wonderful enchantment. There has been colour in the oak woods of which the eye cannot get its full; colour and shade and grouping endless in variety, flung together anyhow, and yet with careless perfection making masterpieces, by contrast with which the greatest human art in colour and arrangement is meagre and futile.

Sown by accident among the oaks, the birches have also been most beautiful this November. Losing their lower leaves early in the month, they kept the upper ones till the oaks had turned. They appeared as peaks of pure yellow, bright almost as the slanting sunbeams that fell across them in the afternoon. The golden-haired larches alone equalled the birches in brightness, the gold on their thread-like, curled stems turning here and there to bronze. These were the simpler touches in the pageant of the oaks. A man can paint or recall, more or less, what he has seen of these two delicate trees in spring or late autumn when the atmosphere has been clear. But the oaks are indescribable, unthinkable, the moment we lose sight of them. A thousand hues and shades lie on a single tree. Now it seems a glory of orange brown, now of bronze that prevails; or, with our back to the setting sun, the oaks quite near by are carmine.

One impression we can carry away from the oak woods, clear and strong—that the trees, whatever the light and the day, looked as if they were
quickening. It is as though the sap, far from going down to its winter store-rooms, were rushing up, kindling every twig-tip with fire of life. The illusion of spring in autumn has been remarkable in several trees this season, with the birches at their first flush, and here and there with a green-yellow elm; but nowhere so strong as among the oak woods in November.

The Infinite Insect

The grey hours, on the whole, are the richest in colour and tint. Take the oaks. In the full sunshine they offered nothing approaching the variety of subtle hues—the undertones of the wonderful, baffling colour-world—which they gave when the sky was overcast. It is much the same now the woods are bare. True, the oaks on the rain-beaten side of the forest are beautiful on a flashing November morning, branch and bole all in the lichen grey. Seen, too, on such a morning, the woods wear a certain look of tidiness, cleanness, after the litter and disarray of leaf-fall. It is later in the day, however, after the sun has lost its power, that the purple blooms gather, and the whole wood grows winter blue. In the morning—indeed, till the sunshine begins to fade at three o'clock, or so—the fields and lanes in many places teem with life in its least material form. The rising and falling columns of insects—gnats, ephemerae, cheironomi—

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THE INFINITE INSECT

is a familiar sight in many months. By the river, by the highway, in the city even, these columns may be seen for hours moving up and down over a chosen spot. But several afternoons lately, along the lane at the fringe of the wood, the gnats have danced in a long waverling line of columns.

At three o'clock, in the mild sun, I stood at the corner of this lane and looked into a blur of half a mile of gnats rising and falling. This place has no special attraction for gnats. What was going on here was going on over a great part of England. Hundreds of thousands of miles of gnats were rising and falling in long ribbons or lines of columns all over the country. More isolated companies, at the same time, were rising and falling over grassy spots in woods and shrubberies and gardens everywhere. Myriads were moving over pasturage and commons. To human calculation, the individuals that comprise the gnat columns in a single English parish, on a bright November day, are infinite. The recurring decimal recurs not more than the gnat. We need not go to starry spheres for the infinite. It lies at the door, within the space of a few lanes and fields, in the form of life and joy. What purpose, save that of enjoyment, can be served by this filmy column? The vast majority of the dancers are males. They are surely not feeding—unless they feed on a sunbeam—they cannot be trying to attract the favour of curious or admiring female gnats. It is imaginable that by this kind of ecstatic rise and fall in the sun the gnat perfects its life, and so,
matured, can hand down to future generations of gnats the power to live and multiply. But, on the face of it, the pursuit of the gnat column is simply pleasure.

The Midget of Mammals

To return to the supposed power of stoats and weasels to tempt by antics the bird from its tree. I have been talking of this with one whose life has been spent in watching and pursuing English birds, Mr. Hart, of Christchurch. Incidentally, he has studied in some detail lesser mammals, such as the stoat, the weasel, and the shrew. In his collection is the midget of all mammals, the pigmy shrew, which he captured one day with a butterfly net. Here, too, is a pair of those daintiest of furred things, the frisky, charming water shrews. I know this shrew, happy among the cress springs, where it will gambol and hunt for food, let the ice hang in stalactites from tiny gorge and runlet and the cress be singed and blackened by the frost. Yet perhaps even a water shrew can feel cold. One bitter early morning, during that terrible snow and frost in 1880–81, my friend saw a water shrew come through a rent in the ice at the edge of the stream, and, creeping up to the retriever’s tail, lie down and nestle on it. The retriever, perfect in training, needed but a word from his master, softly spoken, to know he must not stir. He sat stock
THE MIDGET OF MAMMALS

still on his haunches, only looking round with wonder at this minute beast cuddling in his bushy tail. I remember an ordinary house mouse having a very different effect on a dog of mine. This was a rough-haired collie, a grand beast, which, however, would stoop to ignoble game, catching mice in the kitchen like a cat. One evening, as he lay stretched full length on his side, sleeping in the passage, a mouse scampered right over him and disappeared in the darkness beyond. That dog was upright, on all fours, in a flash, as if his body were some spring of instantaneous action; and, scared as by a ghost, with his tail tucked out of sight, he came rushing to us through the open door for shelter.
DECEMBER

The Stoat and Willow Wren

As to weasels, my friend has never seen them first lure and then grab a bird. Mostly they hunt, he thinks, out of sight beneath the ground, but he knows that they and stoats prey much on feeble fledglings in spring and summer. He believes a stoat, sometimes, at least, has power to draw a small bird to its doom without troubling even to juggle to it. He saw a stoat at the mouth of its hole angling for an agitated willow wren which was fluttering about the twigs just above. The stoat popped half into the hole, chirped shrilly again and again, and the willow wren came right down. The stoat then seized the little thing, and in an instant had it out of sight down the hole—a bird spirited away! But it struck the spectator that perhaps this willow wren came down to scold or entice the evil intruder from her young somewhere hard by. The magnet of motherhood may draw a bird to her fate more than any fascination in the creature of prey.

Mr. Philpott, of Little Marcle Rectory, also gave me a very curious account of a weasel pantomime
THE STOAT AND WILLOW WREN

he witnessed in August on the road. The dancer was watched with rapt attention by a gallery of house sparrows. "One moment prancing on its hind legs, with its forepaws beating the air; at the next, springing up with all its feet off the ground. So it skipped and frisked, apparently in lamblike innocence and gaiety." Suddenly the dancer saw or scented danger and was off. Then the sparrows went back to the wheat. I have heard of a cat drawing down a bird by the sinister charm of its eye, but have never seen this done. It is marvelous how soon a cat will have hold of a wild bird, which by mischance is imprisoned in a green- or outhouse; but—as I have seen it—the cat gets the bird by a terrific bound and an absolute certainty of aim.

Raven Reminiscences

Why did the ravens, that nested regularly in Tangleys Clumps within the memory of living people, desert their old haunt? The rector thinks it was because their young were taken. But I have heard from another man who lived in the district, and well remembers the birds. One raven was accidentally or wilfully shot. The other left the Clumps, but returned in three days with a new mate—the widowhood even of birds that pair for life is short. It seems the young ravens were often
taken by bold climbers, yet the old birds did not leave the place till 1862. The Bishop of Salisbury of those days reared a tame raven, which came from the Clumps. Some people believe the real cause of their forsaking was the cutting of the bough which year after year held their nest. I should think this as likely to make the ravens leave their old fastness as the robbery of their nest; although it is said that the coast ravens to-day will only build in fearful crags, so that their nests cannot be reached by a climber from below: places from whose summits

"The crows and choughs that wing the midway air,  
Show scarce so gross as beetles."

The Goldfinch Dormitory

This cutting off the nesting bough reminds me of a mistake I made a few months ago about the goldfinches in my garden. A bough of a yew was closely shorn, in which a pair of goldfinches had nested in 1903 and 1904. This spring, looking in vain for the nest in the tree, I concluded that the birds had forsaken their old haunt owing to the trimming. But one day in the summer, chancing to look up into the other side of the yew tree, I saw a young goldfinch all but fledged. It was packed tight with its three companions in a most shapely nest, which lay on a kind of platform of yew, and
THE GOLDFINCH DORMITORY

was completely shielded from rough weather by a branch just above, which formed a roof. A snugger dormitory for a party of little birds could not be. These "gold-winged exquisites" kept their secret well. I had peered into the tree many times for nests—I must have glanced at the very branch that held the treasure—yet only in the end by chance discovered it by the tiny sparkling eye that met mine. So the goldfinches had not forsaken their yew, as I thought, but merely changed their lodging from the shorn side to an untouched branch facing north.

Battle of the Birds

The speed which even the rook can command is well shown in its combat with windhover or sparrow-hawk. I say "even," for the rook, in commonplace flight, gives us no notion of a rare power of pace. It is cumbrous, it labours on the wing compared with many other birds. So does the carrion crow. Both assault the hawks, often with rage and persistence. A correspondent gave me an account of battles between crows and windhovers at Niton. The crow would make straight for the windhover, and the two birds would swing into the heights, striving apparently to get one above the other, so as to strike with effect. The windhover, uttering cries of distress or anger, was driven off by the crow,
which pursued it for a short distance, and then returned to the cliff.

I have several times watched the contest between hawk and rook, and it has ended slightly in favour of the rook. I have never seen a rook injure a hawk, but it has driven the foe away. The rook has been the attacker, and this is a great advantage in bird contest. "Thrice is he armed that hath his quarrel just"—yes, but he should get his blow in first. The rabbit has her quarrel just when the stoat approaches her young. She gets her blow in first, and the enemy is humbled. To attack (in wild animal battles) is to conquer. There may be exceptions, but I believe this is the rule. The party assaulted is taken by surprise; he flees in confusion. The hawk rarely turns—does it, indeed, ever turn?—on the swallow, pursuing and clamouring at it. The mobbed owl does not strike at tit or finch. During a high wind last week I saw a homing rook swerve aside to assault a hawk which was trying to hover over the woods. The hawk made no attempt to defend itself. It fled at once, with the rook in hot pursuit.

The pace reached by both birds within a few seconds was tremendous. Grand to watch, they rushed down-wind, straight as an arrow from the taut string, and, it seemed, almost as swift. Pace once gathered, they turned right into the wind, or glanced across it, still moving at a speed that all but baffled the sight. Glorious were their swoops down and up, curves, fiery darts!
BATTLE OF THE BIRDS

The rook was never far behind; almost in a position to strike a blow, never quite able to get one in. The hawk was always the pursued, making no attempt to turn and rend the rook; in the end he escaped among the oaks, and the rook joined the slow, solemn train of rooks which meantime had come up and were labouring over the wood in the teeth of the wind, on their way to roost. I doubt whether kestrels or sparrow-hawks attack a rook or a carrion crow, save when it approaches their eyrie; then they would attack fearlessly, and rout the intruder, just as they themselves are put to flight by rook or crow. But in a set battle, waged with equal spirit by both fighters, the rook could hardly win. He has superior weight, and perhaps no mean striking power, but he must tire before the hawk. The carrion crow, in a duel to the death, would stand a better chance; a glance at that truculent head and bill tells one that here the hawk would have a wicked foe. Yet the crow also should go down before the superior agility and staying power (on the wing) of the hawk.

Some birds fight on the ground. A friend told me he saw a duel to the extreme between hen black-birds. By chance, he intervened just in time to save the life of one, whilst the other feebly fluttered off. The keeper saw the end of a duel between cock pheasants. It took place in the road through the woods, and, as the keeper came up, the beaten bird dropped, dying. The duelling, then, of birds, may be really to the death; differing from the squabbles
of jays at the pairing season, as the slashing matches of the German students differ from the affairs of honour between hard-bitten eighteenth-century gentlemen. But I am sure these duels are rare. As a rule, neither party comes out of the fight a whit the worse.

The Storm Pines

In wild weather I walked up to the three clumps of pines, and found the place in the very mood to help me to imagine their lost ravens. The way is through the wood, then up the long, rising lane, past common and ancient heath, whose rough black-thorns at the top are thinly sprinkled here and there with white travellers' joy that looks like snow. It is a lonely way—one thatched, dark old farmhouse standing back from the lane, and the cottage, whose tenant says he can remember the ravens, which he last saw when he "minded" the cows on the common.

They would fly over the cottage sometimes, and he cannot forget their cry—it was more like the yapping of a dog than the note of any bird. Past some ferny banks and the grass-grown brick-kiln, and then the clumped pines, dark and stern, begin to show themselves. They lie near the highest point of the ridge, and from here one looks across the valley to a hill still less tamed, a thousand
feet above the sea, where the rough-legged buzzard and the ring ousel stay awhile in autumn—the ousel, no doubt, again in spring. The driving rain, passing over to these hills, wrapped them in a most solemn shroud of grey; whilst by play of light and stormy sunset the huge roof of cloud above them north and east was turned for a few grand minutes to a deep thick blue. The cloud blues of winter are among the rarest and loveliest of all.

For a hundred winters at least the tallest raven pines on this ridge have been stormed at by the full force of winds. But for a few useless thorns round their lower boles, the pines are practically without shelter. Yet some have reached a grand height, and all are storm-proof. Trees in exposed spots often shrink and grow away from the quarter where the storms strike them hardest; they are blasted on the weather side. But we do not see such quailing or aversion in these pines. Perhaps they do not grow away from any one quarter, being whirled at impartially from all quarters year in year out. The trees stand upright enough, spread their dark platforms indifferently in any direction. But how few these platforms are! It is the survival of the toughest. If one wished to breed pines with wood and foliage as storm-proof as can be, one might well choose the seeds of trees that flourished on such a battered hill. Icy storms tanging through them from the north, gales laden with wet that burst upon them from the south-west with a sound like sea-surf, have tested every branch. How the supplest village
lad—unless he had irons—swarmed up the lofty trunk of the raven pine till he reached the few top branches, I can hardly imagine; once perched there, and sure of head and nerve, he might crawl out near the very end of the branch that held the nest without fear of it giving, so tough and seasoned it would be.

At the Estuary

At the close of November a gunner will take wild-fowl or woodcock with the zest an angler takes trout in April. A gunner went down to the harbour the other morning before light to find a lake near by, soon after sunrise, black with coot. The weather watcher predicts an old-fashioned season for wild-fowl. It is to bring widgeon, mallard, and pochard to the harbour, marshes, and mudflats by the coast, in something like the numbers that old shore gunners knew. In the open sea, but within a stone-throw, sometimes, of the beach, grebes have already appeared—the great crested grebe and the dabchicks; and, more often than we might suppose, that noble bird, the great northern diver.

In the dank, sad cottages about the estuary, the fishermen are watchful for the foreign birds, as they call the widgeon and other ducks. Hardly a single bird, or a pair, much less a small flock, can come among the brown flossy-headed reeds, where the
AT THE ESTUARY

bankless river spreads vaguely, and the tide comes up, but the wild-fowler has marked it down, and is ready for the stalk. There is no pursuit or watching of game touched more with the charm of wild places than this of the cold, lorn flats, glooming one time, glistening another with auroran glory. I like the idea that, so steeped in the spirit of their environ do the natives of such spots become, something of the very sounds here pass into their voices; just as it has been strongly fancied that there are echoes of the crying gulls in the voices of folk in aloof fishing villages. And may there not be some faint echo of the sea in the song of the fisher?

In the copse all the woodcock are in. Go out without gun or thought of woodcock; it really seems you are sure to flush one or two. The keeper, on his round the other day, flushed seven in the six or seven years' old hazel shoots along the brow of the wood—all within range. One winter afternoon, walking home after rabbit shooting, I saw three woodcocks, first a pair—such a right and left! —and then a single bird, fly across the road to their feeding ground, I think in the blind track among the oaks; I had just taken my cartridges out. But though woodcock and water-fowl have been coming in fast of late, there are still young birds about, lately fledged. I found in the coppice a fortnight ago a wood pigeon with fluff still on its head, within a few hundred yards of the spot where I found one late in November four years ago. At Alford, in
Lincolnshire, there were young rooks in a solitary nest a month since. The old man who lives in the cottage close to the nest was asked how many young rooks there were. "Well," said he, "I could see two cockin' their nebs when the old 'uns came to feed 'em."

The Cat as Mesmerizer

The question whether a cat catches a bird by fascinating it is one of the most curious in natural history. It is closely allied with the subject of snakes and serpents paralyzing their victim before they seize it—"like birds the charming serpent draws"—and, perhaps, with that of the weasel cajoling birds by a display of spin and tumble. Human phenomena of the same kind were interesting people at the very dawn of history. In the charm of the "evil eye" fact and fable were so jumbled that even to-day we cannot quite disentangle them. The ancient antidote for such sinister charms was absurd, but in the light of mesmerism we hesitate now to scoff at the whole idea.

J. G. Wood thought that birds were peculiarly susceptible to fascination or mesmerism. He mesmerized canaries, he said, by laying them on their backs and pointing his finger at them, or by laying them on their backs along a white chalk-line drawn on a blackboard, and leaving them there. It is said
THE CAT AS MESMERIZER

that a captured wryneck will sometimes "sham death," and it occurs to me as just possible that here may be, not simulation, but mesmerism.

Has it been proved that serpents regularly and deliberately practise, for a livelihood, fascination? I think not; though certainly birds and other creatures, in protest or terror, suffer themselves to come so near the reptile that they pay the penalty with their lives. Lately I have heard a good deal about this fascination. One field naturalist of long experience told me the other day he had no doubt that cats often fascinated birds. He does not think they can mesmerize a grown house sparrow—the sparrow knows too much—but he has seen a robin drawn off a tree by a cat's glaring eye; nearer and nearer came the doomed bird, twittering all the while, till the cat sprang upon and devoured it. Another saw a robin mesmerized by a cat squatting on a wall, gazing intently at the bird, and moving its lower jaw rapidly—he could just hear it uttering a slight noise sounding like "tchee, tchee, tchee"! At the moment the cat was ready to strike he called out. The spell was broken. The bird was a-wing, the cat skulked off. Interruption by man seems instantly to break the spell. It is the same when man interrupts wild animals in combat. The duellists, however far their quarrel has gone, separate, and fly before the common enemy. Birds thus interrupted will often fly off with a cry quite different from that which they were uttering an instant before—a cry of startle or shock. A lady tells me she has
often seen blackbirds, both at Tunbridge Wells and North London, "fluttering in a semi-circle always narrowing, and uttering a peculiar cry." Going up to them, she has always found the cat at work.

The cat is a hated, dreaded foe of birds, and, during the nesting season especially, they will mob it as they mob a hawk—and sometimes cow it. This may go far to explain why birds so often come within striking distance of the crouching, glaring cat. I am not persuaded that cats practise mesmerism or fascination; that it is part of their ordinary equipment. There is evidence that points this way, but not enough as yet. Mesmeric influence clearly exists among wild animals, but it is another thing to say that such and such an animal regularly practises mesmerism. Some African natives say that the lion's power to fascinate is so compelling as to draw people out of their beds at night away into the fatal forest. It shows how completely the idea of mesmerism or fascination takes possession of the mind.

The Earth-cloud

Nothing of every day is more overlooked and nothing fuller of ethereal beauty than the form of clouds. Besides the known and named configurations—as "mares'-tails" of the cirrus cloud and "mackerel-backs" of that cloud which is a kind of
THE EARTH-CLOUD

cross between cirrus and cumulus (cirro-cumulus)—there are endless varieties in form and texture, never quite the same for more than a few minutes at a stretch, even in the dead calm of sundown, and never the same twice.

For fantasies, the clouds are like the clear, glowing fire of the December night. Poring into them, we can see images of strange creatures horned and finned, gargoyles, broken and strewn statues, odds and ends of ogres and giants; with distant rolling downs and peaks and tumbled fragments of mountains, these last chiefly in the piled-up creamy masses of cumulus, that day-cloud which we may see in fine weather at any season, but most in summer blue.

There is a cloud, however, of which the wayfarer at dusk in marshy and in wide-meadowed places has seen much lately, one that, contrary to cloud custom, has little metamorphosis. This is stratus, essentially the earth-cloud, which, from the places where it so often floats, I have called the wraith of the river night. Stratus floats at all times of the year, provided only the sky is clear of other clouds and the air is still. Over the chalk streams I have watched it form at sundown in the height of summer, and at its cold wreathing every trout ceases to dimple the face of the stream, though hundreds were eagerly taking flies a minute earlier. Stratus, in such places, forms perhaps through the air over the water mixing with the chillier air over the earth: though why this should cause the trout to cease
THE FAERY YEAR

rising, or the water-flies, ephemerae and others, to cease hatching, no one can tell.

The earth-cloud has none of the fantastic and quick-shifting imagery of sky-clouds, and, even in the burn and flush of December sunsets, takes on not a glint of gold light nor the faintest suffusion of colour. Look right into the yellow and deep rose in the west soon after four o’clock now, and this earth-cloud, hanging under the fiery screen, is cold and grey as ever. One might imagine it turned at such a time to a shower of gold dust. But it is impervious: nothing can illuminate it.

A ploughed field to the north is the colour of the full sainfoin crop, the stubbles near by are slightly rosied; whilst another field just ploughed, through which one walks westward, is splendid chocolate-brown, with gleams of light on every ridge. On the heath the spent grasses are transformed and transcoloured by this furnace of December. Tawny tufts of hair grasses, so wiry and wasted by day, with the sunset on them grow like the soft fur of some animal—rugs of sable spread over the heath. The brushy tree-tops, engraved on the sky, fine as the inlet of moss-agate, want no foliage for beauty in this light, which seems to redeem everything from winter except this earth-cloud.

Yet stratus is so easily agitated that it may sometimes draw aside and lift when a man walks through it. The faintest currents of air on a calm evening, currents of which we are unconscious, will roll and drive it. In a sheltered, damp spot it will shroud
THE EARTH-CLOUD

the earth over which it hangs in long lines. Above this shroud, perhaps, is clear air, and above this again, near the tree-tops, a long, thin line of stratus, almost stiffly straight. It has little beauty then of form, and none of colour, but, creeping over the landscape at dusk, it is powerfully attractive to watch. Moved in the calm evening air from spot to spot by agencies of which we are not conscious, it is ghost-like: and of all classes of cloud it seems the filmiest.

Gossamer

Not only in the early autumn do the little spiders shoot their silky threads into the air, and cover the ground with their network, millions on millions of miles of gossamer, in substance so fine as to surpass the very air in lightness. I have seen the stubble-fields in the early winter sun shimmering with these glossy lines. One November day, which brought out the gnats for their dance in column, showed, too, the earth spread with the gossamer. If the dancing gnats in a small district, a parish, a single farm even, are to human comprehension infinite, so are the lines of the gossamer spiders. I suppose that if the threads alone that network the fields of one district on a favouring autumn day could be joined, they would make a line long enough to go round England, perhaps to go round it several times over; and this is
to leave out of reckoning that unanchored gossamer which often on such a day sails through the serene air, the spectacle prettily described in Germany as "the flying summer"—Der fliegende Sommer. This gossamer is darted into the air and spread over the earth by spiders of a tiny size. They are extremely numerous, hundreds of thousands perhaps in a single large field; yet even so, how marvellous that they can spin out within an hour or two—for quite early in the morning we often see the ground glittering with their work—such a vast mileage of matter; that such long lines, no matter how attenuated, can come from a creature cast almost on the microscopic scale!

The choicest of all gossamer sights is when these fine webs are weighted with rows of dewdrops. In the bright sunshine, then, each little line from stubble to stubble is like a necklace of threaded pearl or opal made for a fairy. Certainly no pearl or opal shows lovelier colour than the gems on the gossamer, which have those of the rainbow.

Ragwort Gold and Gloom

The blackthorn common, high in the oak and hazel woods, on some of these mid-winter days, is almost as forlorn a spot as the peewit marsh. The coarse ragwort has been encroaching on its turf for years past. At one time the village freeholders'
cattle were so numerous that two cow-boys were needed in summer, and even then we often heard the tinkling bells of cattle that had roamed into the copses; so that a pound, with a sixpenny fine, was a regular institution. In those days the ragwort only grew in tufts here and there on the open common. But to-day, with the capricious brake fern, it has invaded a great part of the open spaces, and is spoiling the pasturage. One result of this increase of ragwort is a food for the rabbits that I have never heard of. They have discovered that the root is good to eat in the winter, and, when the yellowing grass is half smothered by the mosses, they scratch away the soil till they reach the plant.

The root of the ragwort, and often several of its deeply crenated leaves, are hibernating just beneath the moss and grass, and I think the rabbit must discover them by scent where it is not guided by one of the dead stalks still upstanding. Hundreds of little holes in the turf show where the rabbits have scraped away the grass and moss and penetrated to the root.

Broad acres of ragwort in summer are only inferior to the gorse gold of May. We owe to ragwort, too, the day-flying cinnabar moth, with the gorgeous wings of black and crimson. But by the end of the year its gaunt and wasted stems, which have not yet been laid flat like the brake fern’s, are nearly black from frost and rain.
THE FAERY YEAR

On one of those December days that smoke with wet from dawn till dark, the crowded thickets of blackening ragwort help to make the winter scene almost fearful in forlornness. It is the steaming day, not the ice or snow-bound one, that gives winter the truly sinister look. When there is no rain, but the air is reeking and a pall is spread over the entire sky, and every tree, every pallid grasshead in the wood, is an alembic distilling all day—this is the time winter strikes at us hardest, harder than in the dark east-wind days of March, because then we feel that, after all, the spring is quite near. On these melancholy days the landscape is a smudge. A look of lifelessness is over all things. Birds that sing blithely on many wild, wet days are silent now, even the thrush and the redbreast. In the woods the only sound is the ceaseless drip from the tree-twigs.

The Nuthatch's Force

We can always tell now if the tawny owls are astir before dark in the firs round the house by the protests of nuthatch and missel-thrush. Either of them acts as excubitor to those birds to which the owl is a constant menace. The indignation of the nuthatches is great when the owl flies before dark. A pair will make between them a noise which seems to come from half a dozen birds. But the nuthatch
THE NUTHATCH'S FORCE

is always so vigorous. He is one of the most forceful of all our small birds. The great titmouse has power in the bill, but when engaged on a nutshell he does not put the force into his blows that the nuthatch will. When the nuthatch has a very hard and seasoned shell to crack, he will raise himself and bring his bill down on it with all the force that is in him. A shower of these blows rained down on a nut fixed in a crack of a dead oak limb makes a sound that I have once or twice attributed at first to the greater spotted or even the green woodpecker—indeed, the nuthatch’s full blow, perhaps, does make as much sound as the greater spotted woodpecker’s. It is delightful to watch the stout-built, muscular nuthatch, a pocket Hercules among birds, hefting himself up, as our folk say, and putting into the stroke every atom of force he has; shifting his position, too, after a series of blows on one part of the nut, so that he can attack it at another point.

Just now the nuthatch is often seen exerting his utmost power. But where does he find the nuts? The dead hazel leaves cover the remnant of last autumn’s slender harvest, and I can hardly believe the nuthatch would find it profitable to search now for nuts on the ground. In past years I have found a number of nuts in a hole in a lime tree used at all seasons by nuthatches—a storehouse far too small for the squirrel, and surely too high for any mouse. It looks, then, as if the nuthatch were provident. But I cannot prove it. The squirrel and the
dormouse are provident, but both hibernate—though the squirrel sleeps so lightly—and need a store to draw from when they wake. The nut-hatch, awake all the winter, has various foods besides the nut.

If he stored the nut in the autumn, would it not argue singular prudence in a bird, a nice regard for menu months hence? The nearest approach to such prudence among English birds may be the larder of the shrike. But does not the shrike spit the victims on the thorn, because it is able more conveniently there than elsewhere to prepare them for the immediate meal? We hardly imagine the shrike as thinking, "Here is a place for me to hang my food against to-morrow or next day's meal!"

Winter Wood Life

After a soaking day and night, the sky lightens and the clean December wood is radiant and most glorious in the sun. It is an invigorating scene and time. The sun an hour or two before midday is burning an intense blue in the palest sky, an effect peculiar, I think, to these bright winter days. In such weather I see the lines of gossamer, some of them yards in length, stretching from hazel twig to hazel twig. They are not so numerous as earlier in the season; still in the right light I have seen them
stretching in all directions among the underwood shoots. The little aeronauts must have been at work in the wringing wet of the morning before the sun had much power to warm the wood, for all these threads are not shot out and tied between the twigs in a matter of minutes. At the same hour, at the edge of some of the woodland paths and in sunny glades, little columns of diptera and midges were rising and falling. We miscall midwinter the dead season—it is teeming with life.

Haunt of the Hoodies

We are full of theory to-day about colours that count in the strife and press of nature; benign colours that hide the hunted creature by matching it with its environment, malign colours that aid the beast or bird of prey by the same device, alluring colours that bring the bee to the blossom, and so prosperity to the plant, through free carriage far and wide of the pollen. But the riddle of the unessential colour sometimes seems most attractive and baffling of all. We call it unessential because we have not found or thought of any practical use for it in the competition of life. For instance, why are some of the osiers fiery red or gold in the winter? the buds of the coarse-twigged ash tree so coal-black in the early spring?

These fast colours of the leafless trees and
underwoods, colours owing nothing to the transient mists and blooms of atmosphere, are often striking and beautiful. The thorn trees, the cornel, the birches, the sallows, and the wild euonymus are the chief contributors of such colour in the English woods and hedges at this season; and the best show they make is on the clearest, sunniest day.

The withy wood near the mouth of the estuary, under the huge headland of clay and sand, is wine-coloured now. It is well known to a few local gunners and naturalists as a favourite haunt of merlins in winter. It generally harbours a wood-cock or two at daytime, whilst in marshier spots of the ham—a grassy flat of wet and dry in which it is set—is sure ground for snipe.

One day a gunner walking near the withy wood saw a snipe flying very low in a peculiar way. Next moment he saw a merlin in burning pursuit. Both birds were swerving at a high speed. Suddenly the snipe swerved upward. At that instant the merlin shot upward too, and struck dead home, taking the snipe before the lightning swift turn was complete and another plane of flight entered on. The stoop of the peregrine itself would not, surely, be quicker and deadlier than the little merlin's in pursuit of the snipe. Every angle of flight the snipe makes in its desperate race for life—and the snipe has many angles—is in a flash responded to by the merlin. The hare may sometimes beat the fleetest greyhound by her sudden unexpected twists; but every turn the snipe takes is reproduced, in the instant of that turn,
HAUNT OF THE HOODIES

by the merlin. It is faithful as a reflection in a perfect mirror. But I do not say that this reflection of flight is peculiar to the merlin. It is a marvel we may see a hundred times in a summer day when the exquisite sand martins are chasing each other over land or water in their favourite haunts. The swifts in their aërial ecstasies do the same, and so do even chaffinches, and other small birds, in short fiery pursuits.

Looking down, the other day, on the withy wood and the estuary flats, with their sad, still pools of water, half salt, half fresh, I saw no merlin or zigzagging snipe; only hoodie crows, showy in black and grey, rose in a cautious party, and flew away to the edge of the water. There their voices went well with the wild mew and pipe of gulls and the croak of the weighty but swift cormorant from his pulpit, that blackened stake or pile which gives the final touch of dreariness to the mud flat. The hoodie crows are true estuary birds, at home with gull and wader, alert for food washed up in the flow and ebb of tides. Without aid of field-glasses I could watch them, hundreds of yards away, hunting among the creeks and tussocks, toying lightly on the wing at each short flight; for hoodie crows, like rooks, are fond of frolic on clean, bright winter days.
The Erne

But the headland, against whose brown side the withy wood nestles, has at times nobler guests than these. The peak, covered with brake fern and the heathers, and now in oozy spots green-grey with lichen that recalls to me the reindeer moss of Norwegian fields, is visited by ravens and peregrine falcons. The choughs have gone for ever, but the noble erne, or white-tailed eagle, still thrones itself on the peak from time to time. The grand wing of the female erne, Amazon and Queen in stature, perhaps, of English falcons, fully stretched is over two feet in length. Some say the erne roosts on the windy peak among the dead fern and heath, but others are positive that it always retires at nightfall five or six miles inland, and sleeps on the same oak winter after winter, the "eagle tree."

The Gnats' Attendant

A quaint feature of the rising and falling gnat column in winter is the close attendance on it of a party of much smaller insects. These also are members of the two-winged order of insects, psychodæ, I believe. They have no English name, though we sometimes describe them vaguely as midges. Several feet of space, on a bright morning
THE GNATS' ATTENDANT

in fields and the open places of woods, is often dusted with these mites, which remind one of the "fisherman's curse," or "smut," that dusts the pools and back-waters of trout streams on hot summer days, and even cold spring days. The minute smut, only discerned by anglers with most prying eyes, is relished by trout of daintiest appetite. Heavy fish will cruise near the surface of the stream, sucking down these smuts in preference to all other insects. So tiny are some smuts that I have often studied the movements of a large trout long and closely before I could tell what it was rising at. But neither the winter gnats, of which there are three or four species, nor their minute attendants, seem to be preyed on much by insect-eating birds. Now and then a wren, working along the hedge-bottom, will pop up into the air a foot or so to take a gnat, or one of those cheironomi which dance in column; and earlier in the year, swallows, no doubt, flying low, take these insects as they do the ephemereæ over the stream. But on the whole the winter gnats and their companions dance in safety till the sun is down and the moisture in the air begins to turn to dew, when they retire for the night. Though the psychodæ of winter so closely attend the gnat column, dancing on the same plane, they do not actually mix with their friends. They keep near but distinct, as often a flock of greenfinches keeps distinct from a flock of chaffinches, feeding at the same stack or seed-sprinkled patch of ground. What end is served by this attendance of psychoda on gnat we
cannot tell. Food brings together the finch flocks, but not gnat and psychoda.

Long ago Kirby and Spence noticed the gnat column and the psychoda, and charming and refined were their studies of these insects. Once or twice they were dazzled by a spectacle of gnats, which by a wondrous effect of sunshine were much magnified and so glorified that they seemed hardly like matter even in its least gross form. Sometimes a large gnat column driven by a puff of air exactly resembles a sheet of finest raindrops whirled by the wind. I fancy I have seen the same thing happen to a little cloud of psychodæ. The rise and fall of the gnats in column form is not, by the way, quite vertical. I should say that commonly the gnat rises and falls at an angle of about seventy-five. During these movements the gnat's wings by no means always work at a high pace; they may be slow compared with the intense beat of the wings of the hoverer flies of summer.

"Transparent forms, too fine for mortal sight,
Their fluid bodies half dissolved in light,
Loose to the wind their airy garments flew,
Their glittering textures of the filmy dew."

This might apply to dance of gnats in the sun, or of spinners by the river. Kirby and Spence thought that Pope had the gnat dance in mind when he wrote the lines; I fancy he was thinking of spinners or May-flies in imago dress. The dun becomes a spinner after it has gone through its last slight moult. During a hatch of duns I have often
THE GNATS' ATTENDANT

found several of the insects fastened to the nap of my angling coat, awaiting till the thin membrane that covers their bodies splits along the back and makes them perfect insects. Towards evening the dance of the glittering and rosied spinners is at its height, and then we have one of the loveliest insect scenes in the Faery Year.

THE END
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