

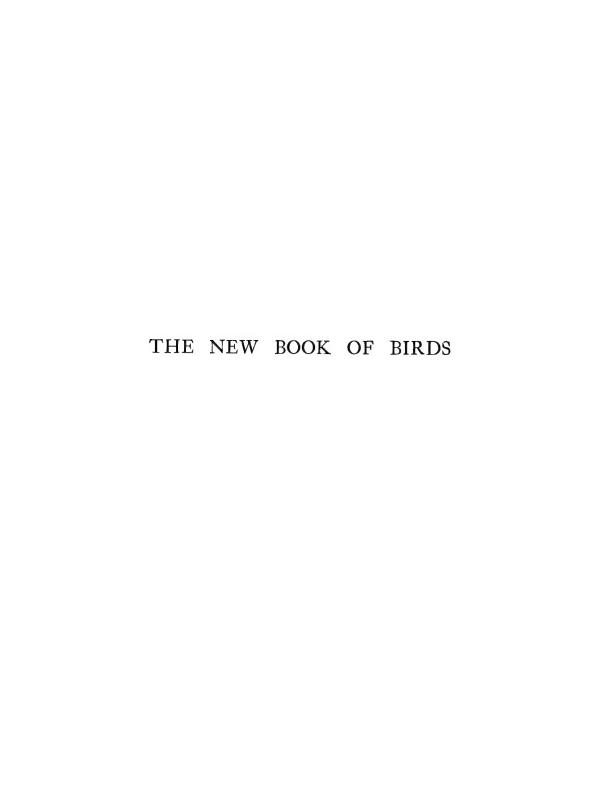
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BY THE SAME AUTHOR

THE NEW BOOK OF ANIMALS

UNIFORM WITH

THE BOOK OF BIRDS

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SECOND EDITION



THE GOLDEN EAGLE.

THE NEW BOOK OF BIRDS

An Album of Natural History

WRITTEN BY

HORACE G. GROSER

AUTHOR OF

"THE BOOK OF ANIMALS" "OUT WITH THE OLD VOYAGERS" LTC.

WITH ILLUSTRATIONS BY SCOTT RANKIN, COLBRON PEARSE, CECIL SCRUBY, WATSON CHARLTON, AND PHOTOGRAPHS BY W. SYDNEY BERRIDGE, F.Z.S. •

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AUDREY

AND HER COUSINS

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THE BOOK OF BIRDS

THE OSTRICH.

If the Eagle is the King of birds, the Ostrich is easily first in point of size. Length of wing belongs to the former; length of limb to the latter. The Ostrich has no mighty vans wherewith to sail sublimely over the highest mountains, but his swift feet skim across the sandy wastes that are his home, with a speed that leaves even a good horse far behind.

A well-grown male Ostrich stands eight feet high, and as his stride measures anything from ten to fourteen feet, and, when going at full speed, considerably more, it is easy to understand why the horsemen of the desert look upon the chase and capture of an Ostrich as something of a feat. What was said by the ancient writer of the Book of Job is still often true: "What time she lifteth up herself on high, she scorneth the horse and his rider."

The Ostrich—the Arabian Ostrich, at all events—has been known to man from earliest times. For, unlike those birds whose dwelling-place is some remote island or pathless forest, his home and playground happened to be on the borders of those Eastern lands which filled with people while still the world was young. The men and

boys who lived in those times, which we read about in the Books of Genesis and Exodus, had only to wander out into the neighbouring desert, to catch a glimpse of the tall fleet birds moving swiftly over the stony plains.

The Israelites must have seen them during their long march through the wilderness; and centuries later, the Prophet writers, when they wanted to describe the fate of a thriving city laid waste and all its people gone, pictured it as a haunt of Ostriches—the birds that love loneliness and open spaces.¹ Their doleful cry, too, was noticed. This has been said by African travellers to be easily mistaken for the lion's roar, but Canon Tristram, who travelled widely in Scripture lands, says: "To my own ear it sounded more like the hoarse lowing of an ox in pain."

Later on, the Romans got to know of this stately bird, and no doubt it was one of the myriad of wild creatures which from time to time were captured, and sent to Rome for exhibition in the arena. Its plumes must have ornamented many a fan and fly-whisk in rich men's houses. And certain foolish gluttons, priding themselves on being givers of costly dinners, made of its brains "a dainty dish" that for awhile set people talking. We are told that one of the Emperors, the extravagant and ignoble Heliogabalus, had no less than six hundred Ostriches driven together and shot down to furnish one dish—one of those acts of wicked waste that were all too common in Imperial Rome.

The merchant adventurers of Venice, who, in the Middle Ages, were Europe's carriers and traders, especially with Eastern lands, must have brought away many an

¹ In several places, in the Old Testament, the word "owls" is used instead of "Ostriches." This has been made right in the Revised Version,

Ostrich plume in their "rich argosies." Fair ladies loved to have them, and knights and nobles often wore them in their helmets both in battle and at tilt and tourney. The picturesque story of how the crest of our Prince of Wales—the three Ostrich feathers—was won by



THE OSTRICH.

[Drawn by Scott Rankin.

the Black Prince on the hard-fought field of Cressy, from the blind King of Bohemia who fell in the fight, rests on no sure foundation. But it is worth noting that a seal which belonged to the Black Prince in later life shows a single feather as part of its design. In the stormy days of the Civil War, when King's men and Parliament men were marching and fighting over the green fields of our fair England, the Ostrich feathers wreathed round the broad hats of the Cavaliers were seen all over the country, and when King Charles II. "enjoyed his own again," the fashion of plumed hats became general. Court gallants and all "Society" people were fond of the beautiful feathers, though probably few knew or cared anything about the desert bird that gave them.

I shall have something to say about the plumes of the Ostrich later on, but first let us see what the bird itself is like.

With its well-poised head, its long, sinewy neck and its immensely strong legs, it makes a striking figure. It has plenty of spirit too, and when roused to attack it is a very formidable opponent indeed.

Its chief weapon is its foot. It can send a hyæna spinning with a well-directed kick, and even larger wild beasts have been kept at a distance by fear of that swift blow.

For Nature, in doing her best to make those feet suited for fast running, has turned out a really fearsome weapon. Long ages ago, the Ostrich had as many as five toes, but gradually the middle ones—to be precise, the third and fourth—grew larger at the expense of the others, and as the third toe is still getting larger and the fourth growing smaller, it looks as if the time will come when the foot of the Ostrich will have but a single toe, armed with a very powerful nail. Indeed, already this nail is big enough and strong enough to inflict most dangerous wounds.

Some years ago, a new keeper of the Ostrich pen in

Wade Park Zoological Gardens, at Cleveland, Ohio, had good cause to know what an angry male Ostrich can do.

To clean out the pen, it was needful for him to coax or drive his charge into a separate enclosure. He had found that the best weapons of defence were an ordinary garden rake, and a handy whip. Thus armed he entered.

The Ostrich at first gave way before the lifted rake, but suddenly, after running back, he turned and rushed like a whirlwind at the intruder. "I raised my rake," says the keeper, who himself tells the story, "but he jumped high in air, and as he descended close beside me, struck me with both feet, knocking me into a corner of the pen. There, while I lay prostrate, he tried to kick me to death."

Had the unfortunate man been in the open, he would have been killed in a few moments. As it was, the great bird did his best. "He would raise his foot high in the air, then kick downward like lightning. His feet inflicted severe cuts and bruises, and tore my clothing in shreds, but, owing to my position in the corner, I was able, by quick dodging, to save myself serious injury, the most painful wound being a very deep gash in the hip four inches in length."

The alarmed attendants finally succeeded in diverting the enraged bird's attention, and the keeper, springing to his feet, caught up the fallen rake. As the Ostrich again rushed toward him he pressed the weapon desperately against its neck, below the beak, and holding it thus, belaboured it into submission with the whip.

The usual weapon employed on Ostrich farms is a forked stick, or a branch of prickly mimosa.

The quarrelsomeness of the male Ostrich, at certain

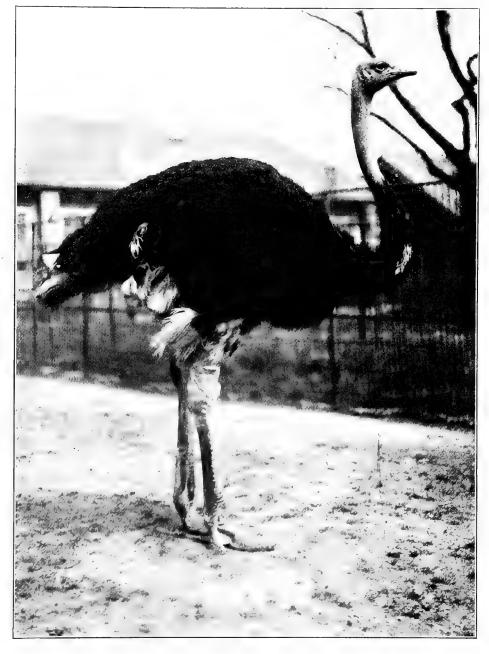
seasons, is such that his ill-temper gets the better of his wits. There is, indeed, a well-attested story of one bird, near a railway line in South Africa, who was so angered at the sight of an on-coming goods train that he rushed at it, hissing with rage, and of course was knocked down and cut to pieces.

As a contrast to these stories, let me give one which comes from Natal and is vouched for by the Rev. R. G. Pearse, of St. Cyprian's Vicarage, Durban. He and two friends saw the occurrence—a very pretty instance of bird-kindness.

"During an exceptionally heavy tropical rain, two ducks got carried in the flood down the Umgeni River, which flows through the Town Gardens. The ducks got entangled in the barbed wire and wire netting which crosses from bank to bank. One of them managed by much flapping of wings to free itself; the other, however, seemed to be on the point of drowning, when a large cock Ostrich stalked out of the bush, and waded into the river. Lifting the duck bodily out of the water, he carried it ashore by one wing. It was not badly hurt, but its rescuer was severely torn on his thigh muscles by the barbed wire."

What made this kindly act more remarkable was that during a storm the Ostrich always kept where he was, with his head buried in the sand. Also, he was by no means always gentle, his quarrels and scuffles with the Kaffir gardener being well-known to everybody in the place.

Like all desert dwellers, the wild Ostrich has accustomed himself to do without much to drink, and to thrive even on food which would seem dry as tinder to more daintily fed creatures. When even that grows



EOMALI OSTRICII.

sparsely, his long legs take him quickly to fresh places, and thus he makes up his proper supply.

As a captive, few things come amiss to him in the matter of eating. "The digestion of an Ostrich" is a phrase that has passed into a proverb. He deliberately chooses to swallow stones and other hard substances to help "grind" his vegetable food. He will pick up and dispose of the oddest things. "I have known one to swallow a pocket-knife and a buckle," says one traveller, while a naturalist enumerates "brickbats, knives, old shoes, scraps of wood, feathers, and large nails," and another says, "it will devour almost anything from meat to keys and coins."

Much has been said and believed about the way an Ostrich cares—or rather, does not care—for its eggs. It was quite a widespread belief, in Old Testament days, that the parent-bird had no loving interest in its brood, leaving the eggs to be hatched by the sun, or trampled out of existence by the heavy foot of some passing animal or man.

What gave rise to this belief seems to have been the sight of eggs lying scattered about, uncovered, round the carefully covered ones in the sandy hollow which serves as the nest. The outer eggs are the odd ones (the hen-bird lays a very large number, and, it would seem, grows careless, like some boys and girls who have more pocket money than they know what to do with).

Over the eggs that are grouped in the nest the Ostrich is by no means careless, though in such an exposed place as the desert she cannot provide for them in any of the clever ways in which tree-building birds and mountain-haunting birds safeguard theirs. All that is possible is to cover them up with sand, and this she

does. Moreover, she sits on the nest by day, and her mate takes her place when evening comes. Whether she leaves her post for any long time is a question. Some say she does, during the hottest part of the day, though not, as old writers used to aver, to let the sun help her in hatching the eggs.

In a former book of mine I had something to say about the wonderful way in which Nature protected certain animals by making the colours and markings of their skins so curiously like the long grass or the leaves and branches among which they move, that they are hidden from their enemies as if the fairies had made them invisible.

Now here in the case of the Ostrich we have another example of this protective resemblance, as it is called. For the hen Ostrich is dressed in brownish grey, a colour which by daylight makes her almost of a piece with the stone-strewn sand around her nest. Whereas the male bird, who goes on duty at night, is a most noticeable fellow by day, dressed as he is in rich glossy black, except for the upper part of the neck, and the lovely plumes of the wings and tail which are snow-white. It is easy to understand that such a black and white bird squatting on the ground would be hard to distinguish at night, even in the broad moonlight.

Where the open country which the Ostrich loves is dotted, as it often is, with clumps of heath and other bushes, the hen bird will choose a patch of ground in the midst of these, and thus get the benefit of the shelter they afford, poor though it is.

The brooding time lasts for six or seven weeks, and both the parent birds must be glad when it is over. For

¹ The Book of Animals (London: Andrew Melrose).

if a foe finds them out, a foe that is too formidable to be dismissed with a kick, they have no choice but to get up and run.

An Ostrich egg weighs about three pounds. It holds almost as much as a couple of dozen hen's eggs, and is said to be delicious eating. Its shell is so thick that it takes some forty minutes to boil.

In South Africa, in the old days, when Ostriches were plentiful, the Bushman used to look upon their eggs as an important part of his food-supply. The empty shells, having been carefully chipped open at one end, were used by these natives as drinking vessels. "I have often seen Bush-girls come down from their distant homes to the fountain," says Gordon Cumming, "each carrying on her back a kaross or network containing from twelve to fifteen Ostrich - eggshells." These they filled at the spring, and then corked the hole with a simple stopper made of grass.

The Ostrich is still hunted in certain parts of the great African continent—in the dry wastes of the sun-scorched Sahara for instance, and in Somaliland. Stories of its chase and capture in South Africa belong for the most part to days that are now past and gone.

The Bushman used to have a number of cunning tricks for getting within bow-shot of the great bird, and then discharging his little deadly arrows, with their poisoned tips. One way was to crouch down in the midst of an Ostrich nest, during the parent bird's absence, having first removed the eggs, and when the astonished bird returned, to shoot before it had recovered from its surprise. Another plan was to disguise himself in the skin and plumes of some slaughtered Ostrich, and boldly

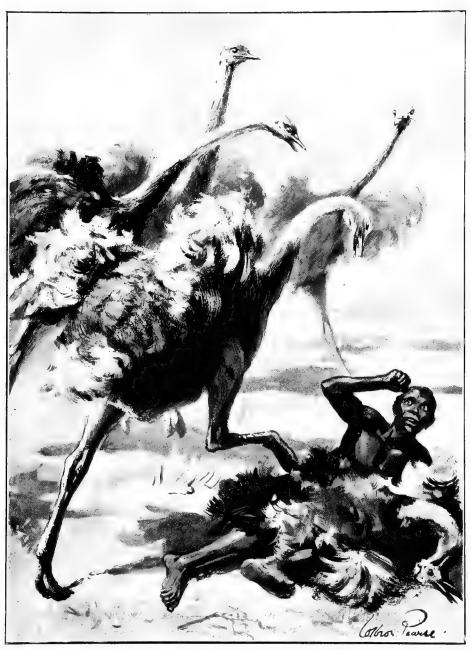
walk in among a troop of these birds, stealthily discharging arrow after arrow.

The disguise enabled the Bushman to get within range; but it did not always save him from the consequences of his bold trick. A German writer of thirty years ago gives the following story of a hunter's experiences in South Africa. He had a Hottentot servant, Kulu by name, who greatly wished to try this trick on the next group of Ostriches they sighted. He was allowed to do so, his master and two friends following him at a distance on horseback, curious to see how far he would succeed.

"But," says the hunter, "matters turned out quite differently from what we had expected. At first he was very successful. We saw him, through our telescopes, striding along over the plain like a real ostrich, without appearing to excite any suspicion among the birds. When he got among them he took aim, and a bird fell." The three horsemen then galloped up, but, when they reached the spot, what was their surprise to find that the makebelieve Ostrich had also fallen, and was in danger of being killed.

Kulu had indeed shot his arrow, though the poison had not been quick to take effect; but the next time he took aim the Ostriches became suspicious and closed in upon him threateningly. Soon they grew sure that the intruder was not one of themselves, and they fell upon him, and beat and hustled him with their wings so roughly that he sought safety in flight. But even a Hottentot has no chance against an Ostrich in running, and he was speedily knocked down.

It is probable that he would have been kicked to death before his friends reached him, had not his disguise



"THEY CLOSED IN UPON HIM THREATENINGLY." (See page 12.) $[Drawn\ by\ {\it Coleron}\ {\it Pearse}.$

of feathers suddenly fallen off. The Ostriches were so astonished at this extraordinary sight—a scarecrow bird first of all shooting arrows at them, and then coming to pieces before their very eyes—that they could do nothing but stare at him and walk round him, waiting for the next thing to happen. But meantime the three horsemen had ridden up, and the unlucky Hottentot was rescued, well-nigh crazy with terror.

The veteran big-game hunter, Gordon Cumming, paid for rashly coming near a wounded and dying Ostrich. It was the first he had "bagged," and a very fine male bird. Badly injured though it was and lamed, it "lashed out," he tells us, "and caught me a severe blow on my leg, laying me prostrate. . . . The power possessed by an Ostrich," he adds, "can hardly be imagined; the thigh is very muscular, and resembles that of a horse more than of a bird."

This same hunter mentions having seen an Ostrich use the stratagem which so many smaller birds employ, of luring the intruder away from the nest by shamming injury. "I fell in," he says, "with a troop of twelve young Ostriches, not much larger than guinea-fowl. I was amused to see the mother try to lead us away, exactly like a wild duck, spreading out and drooping her wings, and throwing herself down on the ground before us as if wounded, while the cock bird cunningly led the brood away in an opposite direction."

In their wild state, in South Africa, Ostriches are constantly seen mixed up with herds of gnus or wildebeestes, zebras, giraffes, and other roving animals, with which they travel about on the vast plains. It seems a strange comradeship, but they have one thing in common—fleetness of foot. If danger threatened, as often

it does, none would hinder the other. So the plan works well enough.

The slaughter of Ostriches in the North African deserts by such persistent hunters as the Bedouins, the Somalis, and the like, and the opening up to civilisation of their old feeding-grounds in South Africa, suggested at last that it would be a very wise plan and a very profitable one to tame and rear Ostriches for the sake of their plumes.

"Ostrich farming" did not seem quite so simple as poultry farming. Such a bird seemed as unfit for domesticating as the zebra. However, the experiment was tried and tried successfully. This was in the year 1867. More and more people took up the business, more and more money was invested in it, until, in a little over twenty years, eight millions sterling was being used in Ostrich farming, of which the profits were £800,000 per year.

Those were the days of high prices indeed. As much as £400 was given for a fine pair of birds, and a pound of feathers (about eighty or ninety good-sized feathers go to a pound) fetched as much as £100, £25 being often given for a single set of plumes. Then prices gradually fell, till a set of plumes (i.e. the feathers of one bird) fetched only some thirty shillings, and £20 or £25 would purchase the bird itself. Nevertheless, the industry has so increased that the feathers sent out by Cape Colony alone recently exceeded in value a million sterling.²

¹ Between the years 1850–1860 a flock of domesticated Ostriches seems to have been kept by a Mr. Kinnear, of Beaufort West. Even earlier than this, a French society had tried the experiment of Ostrich farms in Algeria.

² In June 1909, the Cunard liner, *Mauretania*, sailed from Liverpool with what was believed to be a record cargo of *twenty tons* of Ostrich feathers. They came from South Africa and were going to New York. They were valued at £100,000.

Besides the Ostrich farms started in Algiers and in Tripoli, others have been begun in such widely different places as California, Australia (Melbourne), Buenos Ayres in South America, Egypt, and the South of Russia. In 1902 they were introduced into Madagascar, and the great birds are said to have taken kindly to their new home.

About once a month the Ostriches on such farms are looked over, and those whose feathers have sufficiently ripened are driven in to be plucked. Special pens are provided, called plucking kraals. Here, as in an elephant keddah, the Ostriches are so crowded together that they have not enough elbow room, or rather, kicking room, to be dangerous. There is still less room when one by one they find themselves in the plucking-box. Here two smart operators stand ready with their shears, and a few snips relieve the bird of the beautiful plumes which are his glory. These are taken charge of by the sorters, who classify them according to their colour and value.

Let us now glance at one or two cousins of the Ostrich, who represent him in lands far away from his native Africa.

First of all there is the EMEU. Any one can see that this bird belongs to the Ostrich family, but he looks like a poor relation. Set beside his African cousin he is dowdy to a degree. He has neither his height nor his brilliant contrast of plumage, nor has he furnished fair ladies with feathers to be proud of.

His home is the great island-continent of Australia, and, until the middle of last century and later, his tribe wandered freely over the length and breadth of that late-discovered, late-colonised country. But the coming of the settler with his horses and his dogs meant trouble for the Emeu. The wire fences of cattle stations and sheep-runs

encroached more and more upon his solitudes, and, even in the places whither he retreated before the invader, he was constantly hunted down for sport.

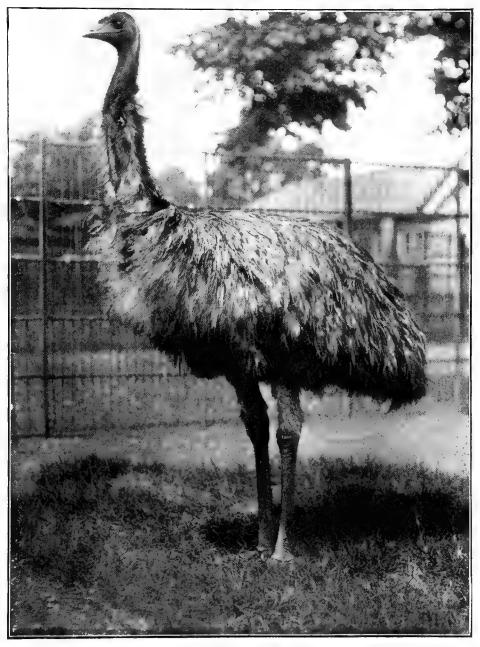
Now and again his flesh has stood the hunter in good stead, when food has run short. (It looks and tastes like coarse beef, and that of the young bird is said to be delicious.) Indeed, one of the great exploring expeditions that penetrated into the unmapped regions of Australia—the expedition commanded by Dr. Leichardt in 1843—1848—was only too glad to come across this bird, to replenish its stock of provisions. And fortunately for the brave pioneers the birds were very numerous along the route they took.

Captain Sturt, another Australian explorer, also noted them, and he describes in his book how, when travelling down the Murrumbidgee River, he saw two Emeus in the act of swimming.

The blacks of course eat the flesh of the Emeu; their tastes in the matter of food are not over-particular, and they like it all the better when it is flavoured with the pale yellow oil which is usually found in the skin. For this reason they prefer to roast the bird without first skinning it. These natives regard Emeu meat as an honourable dish, and they will not allow the women and immature lads of the tribe to partake of it.

The eggs are also eaten. The shell is not ivory white like that of the Ostrich, but of a bluish-green colour, which becomes dull and unbeautiful after it is broken and emptied, and exposed to the light. From nine to a dozen eggs are laid, the only attempt at a "nest" being a hollow roughly scooped in the sandy soil.

Some ten or eleven weeks are needed to hatch out the brood. The little Emeus, for the first few weeks of their



THE EMEU.

life, are marked with several black and white stripes, and when they are hatched their tiny legs are prettily spotted, but this peculiarity very soon disappears.

Ostrich-like, the Emeu's home is on the sun-scorched plains and bush-dotted expanses which make up so large a part of the wilder regions of Australia. His food consists mostly of "roots of various kinds, herbage, fruit, and berries."

His long legs are his best safeguard from enemies, four-footed or human, but the deadly bullet of a modern rifle leaves him little chance of escape if the hunter has crept up to within easy range.

Like the Ostrich, he can deliver an effective kick when he and his enemy come to close quarters, but whereas the Ostrich kicks forward the Emeu kicks either backward or sideways. His reach, too, is considerable, for he stands from five to seven feet high.

Whether Emeus have a sense of fun we can hardly tell, but sometimes, in captivity, they act as if they had. One writer, for instance, recalls how he once noticed several tame Emeus, near Government House, Sydney, walking about among the people while the band was playing. Some visitors, who were not used to meeting Emeus in their walks abroad, came suddenly upon these tall birds and took to their heels, much scared. The Emeus appeared to think this a great joke; they gave chase, and coming up with one of the men, lifted his hat from his head to his no small alarm and surprise.

There are two species of Emeu. One is now found only in South-eastern Australia; the other inhabits Western Australia.

Let us hope that this tall, fleet-footed bird with its strange, hairy-looking plumage, which is Australia's

national bird and has its portrait on one of the postage stamps of New South Wales, may be saved from extinction. It will be indeed a shameful thing if no attempt is made to preserve it.

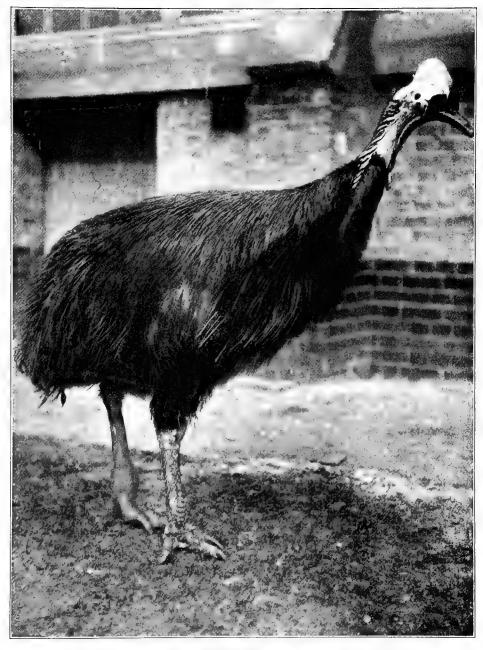
Australia may claim another "Ostrich" as well as the Emeu, for the CASSOWARY roams the plains of Northern Queensland. It is found, however, in other places, and we think of it rather as a bird of New Guinea and those Eastern islands that lie scattered like the beads of a broken necklace over the sea spaces between Australia and Asia.

The Cassowary is a far more handsome fellow than the brown-feathered Emeu. Indeed, what with his abundant glossy black hair-like feathers, his crested or helmeted head, his high strong beak and "combative" eye, the bright red and blue colours running down the upper part of his neck, and his five or six feet of height, he has a very striking appearance indeed.

As if to mark out the Cassowary still more unmistakably as a pugnacious bird, five featherless quills project on either side of his body almost as stiffly as those of a porcupine. Also he has the family trick of dealing very sharp and dangerous blows with his strong foot, the inner toe of which is armed with a formidable nail which can rend and bruise his assailant.

In Australia he is rather badly persecuted, his skin being in demand for doormats, coverings, and rugs. But in some of the less populous islands of Malaysia, especially Ceram, his tribe fairly holds its own.

The latter place, though only some two hundred miles in length by fifty miles broad, has supplied a good many specimens to Zoos and Wild Beast Shows. Its solitudes give shelter to large numbers of this bird. "They wander,"



THE CASSOWARY.

says Dr. Wallace, "about the vast mountain forests that cover the island, feeding chiefly on fallen fruits, insects, or crustaceæ."

The four or five eggs laid by the hen-bird are green in colour, and will usually be found lying on a bed of green leaves.

The New World, too, has its "Ostrich," and he is far more like the real Ostrich of Africa and Arabia than either the Australian Emeu or the Malayan Cassowary.

True, this bird, the RHEA, has not the beauty of the African bird. He lacks the splendid white curling plumes, and the brilliant black and white colouring. Also his five feet of height compare poorly with his cousin's eight. Nevertheless his thick coat of ashy grey feathers, tipped with white on tail and wings, has its market value.

That is one of the reasons why so many of his tribe are killed, every year, on the great level pampas which are his home. It is dreadful to think how pitilessly they are being exterminated in one place after another. Four hundred thousand a year, is one computation of the number slaughtered.

If such destruction goes on much longer, the wild Rhea will soon be as rare a sight on the pampas as the great bison has become on the North American prairies.

Half-wild Rheas are common enough on many of the estancias of Argentina. Land owners brought in wild ones and let them loose among the cattle. They did no harm, and it was pleasant to see the big birds stalking about. Thus, being unmolested, they increased greatly, and it is not uncommon for any one who is riding through one of these cattle runs to see great groups of some forty or fifty Rheas feeding quite close to the road, not in the least scared by the frequent passing of mounted men.

An acquaintance of mine, who has spent many years on some of these extensive estates, thus writes: "The nests are simply slight hollows scraped in the ground amidst or beside some big clump of grass or carda (thistles). When the hen is laying, the male bird covers up the eggs, as much as possible, with dead leaves or thistle-stalks, directly she leaves the nest. He also takes his turn daily on the eggs.

"When once they are hatched the care of the young ones rests on him alone, and very proud he seems to be of his charge. Directly any danger threatens, he warns them by a peculiar booming cry. Then the young ones immediately scuttle off and hide themselves in the long grass.

"Meanwhile, their parent advances boldly towards the foe with outstretched wings, as if meaning to fight in their defence, and only takes to flight when the young ones are far away. I once saw a big male Rhea caught owing to its anxiety to save one of the brood, evidently but a few days old, which had got entangled in some weeds when trying to escape. It turned back on hearing the plaintive tweet-tweet of the young one, and never attempted to leave it until both were surrounded."

This same writer says that even with the help of a keen-nosed dog it is not easy to find young Rheas, for they have a habit of lying low in the grass, with their long necks stretched out flat on the ground.

But like so many timid wild creatures, their inquisitiveness is often fatal to them. Any one who can creep up near to their feeding grounds, and crouch behind a tuft of grass, and then quietly hold up a coloured rag or handker-chief on a stick, will speedily have them stalking across to him.

The hunter will get his shot, but whether he will bring down his bird is another question, so well protected is the Rhea by his thick coat of feathers.

Perhaps that is one of the reasons why the gaucho (who has a true cowboy's expertness with anything like a lasso) prefers to use the "bolas" or balls. These are either a couple of round stones covered with leather, or oval balls of lead or bronze. The balls are linked together by a yard or more of thong—thin strips of raw hide—and the horseman rides hard at the Rhea, whirling the bolas round his head.

Suddenly he lets fly, with unerring aim, either at the long neck or the legs of the running bird. The thong, as in the flick of a whip, winds itself round the fugitive, who usually falls to the ground.

It is said that since the number of wild Rheas decreased so greatly, the native hunters have become much less expert with the bolas.

Darwin, the great naturalist and thinker, came across the Rhea when he went to South America. He was struck by the bird's swimming powers. In Patagonia, a friend told him that at one place on the coast he had seen Rheas in the bay "swimming from island to island: the distance crossed was about two hundred yards." And he himself saw several crossing the Santa Cruz River "where its course was about four hundred yards wide and the stream rapid."

Some of these Patagonian Rheas which he saw coming down at low tide to the mud banks, at one bay, were said to fancy a change of diet in the form of small fish which they found in the pools and shallows.

An Ostrich eating fish sounds odd enough, but indeed the Rhea has the family digestion, and can eat the most extraordinary things. My friend of the pampas, whose words I have quoted, saw "a large piece of an earthenware bottle" taken out of the crop of a hen-bird killed on an English-owned *estancia*. And on another occasion, he was just too late to prevent a pet Rhea from swallowing half a handful of inch nails which a carpenter had left lying about on the ground.

THE PELICAN.

To be told by travellers that the clumsy, waddling Pelican is a bird that soars high and flies far sounds like a jest. Those of us who have only seen him, grave and dignified, in his enclosure at the Zoo, rousing himself when feeding-time comes round, but mostly moving about in a dull, heavy kind of way, cannot well believe that he can ever be other than awkward.

Yet we have only to ask bird-lovers who have journeyed in the warm, spacious lands that are his home, to find that the Pelican free and wild is veritably a different creature—strong on the wing and active and shrewd in winning his daily food.

Listen to what Mr. H. A. Bryden, the African hunter and traveller, says, and picture to yourselves what he has seen: "There are few things in nature more beautiful or more impressive than the sight of a big troop of Pelicans, hundreds in number, soaring far up into the heavens in long skeins, each great bird following the other in orderly and most majestic flights.

"In the Ngami country, on the Botletli River, in the far interior of South Africa, these displays were particularly grand. Up into the clear pale green and primrose sky of an African dawn, after their night on the river, where they had occupied themselves busily in fishing, they rose slowly . . . winding through the clear atmosphere far up to an enormous height."

When they had thus mounted up, the whole chain of

white birds began a series of most graceful follow-my-leader movements, "winding in and out in a wondrous maze of flight." After these exercises the whole flock would sail off to some distant part of the veldt, where they spent the rest of the hours of daylight. "The impressions of these flights," Mr. Bryden says, — flights repeated "night after night, and morning after morning, were so wonderful that they can never be effaced from my memory."

When we read such words as these we rub our eyes and ask ourselves whether the traveller can really be describing Pelicans. Yet others have the same surprising story to tell of the soaring powers of this seemingly clumsy bird.

How is it all explained? Let me mention two or three things which make such wonderful flights easier to understand.

First, there is the length of wing. A Pelican has not only a very strong wing, but also a very long wing. A well-grown specimen will measure as much as ten, and even twelve, feet across from wing-tip to wing-tip.

None of you would suspect such a length, however long you watched the bird at rest. You have to see the wing extended, and then—well, seeing is believing. The fact is that Nature has made that part of the wing which answers to your forearm extremely long, but—and this is the point I want you to notice—its owner keeps it folded flat alongside its body when resting, and the next joint, also a long one, is made to fold backwards. So that, as one writer aptly puts it, "when the whole machine is opened out it is like the opening of a two-foot pocket-rule," and is a perfect surprise in the way of length.

Another fact is this: heavily built though the bird

seems to be, the framework of his body is really marvellously light. Some skeletons have been found to weigh no more than thirty ounces. Also, a Pelican can inflate himself with air to such a degree that he becomes very buoyant indeed, and can thus mount up into the blue sky almost as lightly as a seagull.



Photograph by]

THE WHITE PELICAN.

[W. S. Berridge, F.Z.S.

Then, again, the heavy-looking leathery pouch beneath his beak, which is so capacious that it could hold two gallons of water, weighs really comparatively little, and can be closed up so thoroughly that it becomes hardly noticeable. When flying, it is said, "the head is tucked well back and the short legs are thrust out behind." The long beak often measures over eighteen inches, and although not so strong and formidable as it looks, it is often used by the bird in self-defence. Mr. Bryden once saw a Pelican that had been shot and was lying badly wounded strike fiercely and strongly at a native who ran up to despatch it.

A notable thing about a Pelican's feet is that *all* the toes are webbed. Most of the web-footed birds have only the front toes webbed.

This, of course, gives him a pair of splendidly broad paddles with which to move over the water. If ever you have the good luck to watch a Pelican coming down from a high flight, you will see him open out these webs till they seem to be of a most unbirdlike size and shape.

There are several kinds of Pelican—ten or eleven, some naturalists make out. First, there is the Common species, sometimes called the Roseate or the White Pelican, because of his snowy plumage which is tinted with a flush of rose colour or salmon. The largest of the family is the Dalmatian Pelican, who wears "a curious crest of loose curled feathers." Then there is the Brown Pelican; the Blacktailed Australian and the North American species; and the Spotted-billed Pelican who builds in the forest regions of Burmah.

And where are the first two species to be foun?

They are the ones you are most likely to hear about.

The Roseate Pelican has his home in many countries. He is to be seen as far south as S.W. Africa, as we as in the north-east of that vast and sun-steeped continent, and in some parts of south-eastern Europe. This is the kind whose airy wheelings and circlings were spoke of early in this chapter.

The Dalmatian Pelican, usually known by his Lain

name which means curly-crested, belongs to the south-east of Europe, especially that part which we know as the Levant. Many a river, many a lake, many a reedy marsh sees this handsome fisherman. It is true that in years gone by he and his tribe were ever so much more numerous than they are to-day. But in many places they abound even yet. "On the blue waters of the Mediterranean," says a friend of mine, "along the rocky borders of its islands, and on the beautiful inland waters of the lakes of Greece, they may be seen in large numbers still, their flashing white wings a gleaming confusion of light against the purple mountains and the blue skies."

In an account of a visit paid, a few years ago, to a small Pelican nursery (the number of nests had dropped from thirty-five in 1838 to seven!), another writer, Mr. Simpson, says: "As we approached the spot in a boat, the Pelicans left their nests, and, taking to the water, sailed away like a fleet of stately ships, leaving their newly-built homes in the hands of the invader. The boat grounded in two or three feet of mud, and when the party had floundered through this, the seven nests were discovered to be empty. A fisherman had plundered them that morning, taking from each nest one egg, all of which we, of course, recovered."

In a recently published book, full of beautiful photographs of bird-life abroad, Mr. R. B. Lodge tells how he went after Pelicans in those wild and romantic lands which we call the Balkans. Though he carried a good gun, the chief article of his luggage was a camera, and he was far more anxious to photograph the great white birds than to shoot them.

The first chance he got was in Albania, and in a very out-of-the-way part of that country.

"Our host accompanied us on our way through the forest," he says, "in order to take us to two fishermen, to whom he had sent word overnight; . . . it was through them that we at last succeeded in finding the Pelicans' nesting-place. Clad in loose brown garments, with keen, wild faces and piercing eyes, these two fishermen resembled birds of prey. They were very civil, and we started off with them in two rude dug-out canoes.

"The nests were at last made out to be on two low, sandy islets, some miles from the shore. There was no great difficulty in approaching the birds. Taking care to move slowly and quietly, I found it possible . . . to come within twelve or thirteen yards. The nests (there proved to be nearly 250 of them) were usually in groups of six or eight together, some of them quite small and flat on the ground—mere flat-trodden rings of sticks; but in each group there were usually one or two higher than the rest. These were well and completely made of sticks and about two feet high—very similar to a cormorant's nest, but better made and with a deeper hollow.

"The eggs were long and white and chalky. Two to each nest seemed to be the rule. But at that season of the year (early May) most of the young birds had been hatched out, and quite a number of them were swimming about in the waters of the lagoon.

"The little downy nestlings were by no means pretty, and they kept up a strange moaning cry not very unlike the lowing of a cow.

"The islets on which the nests lay were not stony, but made up entirely of shell-sand—broken-up cockle-shells, in this case. Patches of samphire grew here and there, but where the nurseries were it was noticed that everything green had long ago been blighted and destroyed."

As so often happens to travellers when they are after wild creatures in their native haunts, "countless hosts of mosquitoes and poisonous-looking horse-flies" awaited the two Pelican-seekers, both on this occasion and another.

These troubles are apt to beset the bird-hunter whether successful or unsuccessful, and our two friends, on another occasion, spent day after day roughing it by marsh and lake-side, drifting down the river and ranging the coast-line, without once being rewarded by finding the nesting-place of the Pelicans.

I have read that a Russian naturalist came upon one of their nesting-places by a lake away on the dreary Kalmuck Steppes, in south-east Russia. He found that there were no fish in this lake, and that the Pelicans used to make journeys to the River Volga (seventy miles away!) to obtain food. Back they came, in due course, their great pouches crammed with fish for themselves and their nestlings.

The mother-bird is supposed to feed her young by pressing the pouch against her breast and lifting the "lid," while they take their pick of the captured fishes and eels within. But Mr. Lodge declares that those of the Dalmatian Pelicans which he has watched do not feed their offspring from their pouches. He says, "the young bird inserts its whole head down the parent's throat much lower than the opening of the pouch. In fact, the point of the young bird's beak could be distinctly seen pressing from inside, at the base of the old bird's neck." A curious and uncomfortable way of feeding, one would think, both for parent and nestling.

Baby Pelicans are the oddest little creatures in appearance. There is no grace or beauty about them. Their snaky necks, large heads, stumpy wings, and general awkwardness and helplessness are not disguised by any

pretty fluffy-feather coat. They do, indeed, wear a close-fitting covering of coarse yellowish down, but no one would imagine that they were destined one day to soar up into the clear blue, and flash the sunshine from white wings in bold, graceful flight.

Thanks largely to the way in which dead, half-eaten fish are left lying about around the nests, a Pelican nursery is a most ill-smelling place. The two most common species make their settlements at the water's edge, among reeds and rushes or even on the water, the untidy structure floating like a raft. But the Spotted-bill Pelican of Burmah builds in the trees of the forest, one tree sometimes bearing as many as a dozen nests.

The Pelican of the Philippines is content with a slight hollow in a hillock of sand, so that it cannot take *him* long to decide where his little blind, bald nestlings shall be reared.

The Pelican is by no means a stupid bird, and when it comes to getting his dinner he sets his wits working to very good purpose. One writer thus describes the way in which a flock of Pelicans will join in driving the fish—scaring them into fleeing in one direction, and then gobbling up as many as they can take:—

"They [the Pelicans] collect in a shallow bay, and arrange themselves in perfect order. The cormorants, their inseparable companions, do not fail to join in the feast, and gulls and other fish-eating birds are certain to put in an appearance. The Pelicans, arranged in a semi-circle, give the signal, and approach the shore, striking the water with their wings, and plunging in their heads, whilst the cormorants, as an advanced guard, plunge again and again, and create terror among the fish."

Another writer calls attention to an odd trick of the



THE RED-BACKED PELICAN.

Pelican in using its great pouch in a playful way. "At the New York Zoo," he says, "it was noticed that, in a large indoor pool used for the wild fowl in Bronx Park in winter time, the Pelicans would amuse themselves by scooping up some little Javanese pigmy ducks in their pouches, and holding them there for amusement. They would sometimes add the further entertainment of tossing these ducks up in the air and catching them."

And lest this be thought to be a new use of the pouch only learned in captivity, the same writer mentions how a recent African traveller, coming quietly round a corner of reeds in a canoe, on one of the African lakes, nearly ran upon an old Pelican with one or two young ones. "The bird instantly scooped them up into her pouch, and swam off with them into the reeds."

Man is not the only enemy the Pelican has to fear. Mr. Lodge was told by the Albanian fishermen that the nurseries were constantly raided by eagles which made many a meal off the more unwary of the Pelican children.

In Africa the fishing eagle treats the Pelican very much as Drake used to treat the richly laden Spanish galleons which he lay in wait for, on the high seas. For the fishing eagle delays till the white-winged fisherman has filled his pouch with fish, and then swoops down upon him. The poor fellow opens his beak with a loud cry of protest, and the pirate at once deftly snatches from it a good-sized fish, and the next moment is bearing it away exultantly.

The same trick is played on the American Pelicans by sea-gulls, the bold black-headed gull being the worst offender. He and his robber comrades watch the in-offensive white bird fly off to his fishing, and then go after him. As soon as he lifts his great pouched beak from the

water, with its goodly catch of fishes large and small, they mob him. One perches on his head, the others fly round him, but each and all know that he will have to part with much, if not most, of his fish, and they are quick to snap up one scaly victim after another as it slips out of the pouch.

It is good to know, by the bye, that these American Pelicans, though driven by man from many an old haunt of their tribe, are not likely to be allowed to die out. The United States Government has set apart one place at least as a refuge for them. Here they are safe from the gunner and the egg-stealer, being protected by law.

The place is poor enough to look at, but the Brown Pelicans are glad to flock to it. It suits them quite well, and they don't want beautiful scenery. It consists of a small island not more than three or four acres in size, which lies off the east coast of Florida. It is little else than a mud-bank, and even the mangrove trees which once grew there have been blighted and killed by this invasion of the big white birds.

It can hardly be denied that the Pelican has fits of greediness, and Canon Tristram says that the phrase "like a Pelican of the wilderness," which is used in the Book of Psalms, to denote something very melancholy and lonely, was suggested by the sight of one of these birds, after it had gorged itself, "sitting for hours and even days with its bill resting on its breast."

Another Bible naturalist, Dr. Thomson, records having seen this bird both by the Sea of Galilee and by the Waters of Merom. And a more recent traveller, the late Prince Rudolph of Austria, says in his journal: "I saw a very large flock of Pelicans that came flying across the Dead Sea, and circled for a long time over a great fire

we had made to assist us in boar-hunting." Probably it was by no means uncommon in Palestine, in olden times.

In Northern Africa there are some sheets of water that are very popular resorts of these birds. Prince Rudolph mentions having seen the Roseate Pelican "in incredible numbers" on Lake Menzaleh, a little-known salt-water lake, lying some two miles west of Port Said. And of course the lonelier parts of the Nile, with its sandbanks and shallows and rich mud, are still the haunt of this bold fisherman.

The Prince above-named tells how he captured his first Pelican, beside Lake Birket-el-Kârun, which was growing dark and angry under a rising storm. "The shot rattled loudly on its thick mail of feathers, and feebly flapping its wings it dropped into the water. For some minutes it swam about slowly, but the head with its heavy bill kept sinking lower and lower, until at last the waves turned the bird over and it lay on its back quite dead.

"Neither money nor threats would induce my Arab to go into the water, as the Pelican was really far out. I therefore hurried back to camp to get other men. But, on my return, I saw, to my great delight, that a dusky fellow was already approaching it through the foaming waves. . . . In a few minutes the plucky Arab came swimming towards us, dragging the heavy bird behind him by its bill. I was delighted with my first Pelican, for it was quite an enormous specimen."

The Pelican is distinctly a bird of the warm South. Occasionally a solitary specimen strays to northern Europe. France, Germany, and possibly other countries are occasionally visited. Indeed, so far as climate is concerned, an English summer is "quite good enough" for this migrant,

as the specimens kept of late years in St. James's Park, London, have clearly proved.

Never again is it likely that the wild Pelican will nest and rear its brood in our island, though centuries ago it lived in those eastern flats which were once marsh and reedbed and lagoon, and which are still called, or miscalled, "The Fens."

The bones of two large Pelicans were found, not so long ago, in the peat of the Isle of Ely. Hundreds of years must have passed by since the sunshine flashed upon their white plumage. And it was an England vastly different from that of to-day which their eyes looked upon, as they sailed in from the sea to choose their home among the waving sedges of "the illimitable marsh."

THE PHEASANT.

E think of him as a bird of English woods and glades; and indeed he is pretty well everywhere now, especially in our southern and eastern counties. Nevertheless he is a foreigner—no bird more so; and if it were not for the jealous protection accorded him, he would speedily disappear from our island.

Some say that he was brought here by the Romans, and that hundreds of years before even Rome was built the Greeks brought him from his original home on the river Phasis, which flows into the Black Sea. Thither, says tradition, came the Argonauts in quest of the Golden Fleece. With many an adventure they came, and with many an adventure they returned. They brought back the Fleece, and they brought back also a number of the beautiful long-tailed birds which they found stalking about on the banks of the river.

Whether the Pheasant came to England in a Roman galley or in some trading vessel of a later day, it is not easy to say for certain. But there is no doubt that for many centuries this handsome bird has lived here, and has figured, like the peacock, on many a banquet-board, before king and prelate and merchant prince. That redoubtable priest, Thomas à Becket, is said to have dined off such a dish on the day of his murder in Canterbury Cathedral.

But it is only in quite recent times that the rearing of Pheasants in this country has been carried out on a really large scale. "It is safe to say," one writer asserts, "that in places where there was only a solitary cock-bird fifty years ago, there are now hundreds." And the spread of the fashion has, in some places, quite changed the face of the country. For Pheasants must have "cover," and, to give them such, "hundreds of thousands of acres" of what before was bare open country have been planted with belts of trees and little spinneys just large enough to give the long-tails a refuge and a roosting-place.

"All that Pheasants ask," says a contributor to the *Spectator*, "is quiet. If not chased by dogs or disturbed, they will feed almost up to the horses in the ploughs, or on the lawns of houses." He gives a pretty picture of these birds in the late September days, before the shooting begins: "The scene in the green rides of woods and around the edges of parks, under the oaks where the acorns are lying, is singularly beautiful. The cock Pheasants are the boldest, feeding and scratching in the turf, pecking late blackberries from the brambles on the sides of the ride, or scratching up the leaves in their quiet busy hunt for food.

"Before dusk—for they are early birds—they begin to think of flying up to roost. Soon, on every side, from the woods, across the valleys, and even from the shrubberies near the house, the whirring flight of the ascending birds is heard. Every cock crows a challenge to his neighbour, or, if taking a lengthened flight, utters his challenge again and again as he hurtles through the air to the cover."

He is, in truth, a most handsome fellow, this cock Pheasant. His shining brown plumage, brightening into rich colours on head and neck, gives an added glory to the autumn woods. And how the hues blend and harmonise with the russets and the reds of the September leaves! It is not a pleasant thought to any one but the sportsman, that the beautiful bird is there in those woods merely to be a moving target for the gun—that all the care and the coaxing, the anxious safeguarding and the regular feeding which have been expended on him, are only meant to lead up to the fatal day when a hailstorm of lead will lay him low. The first of October alters everything for the Pheasant. Then he awakes as from a happy dream, to find that his best friend is his worst enemy, and that the green covers whence every enemy was watchfully kept away are full of noise, and terror, and death.

An enormous amount of money is spent in this country on Pheasant preserves, and on many estates the birds are reared simply with a view to providing a few days' shooting in which thousands fall to the guns of their owner and his guests. It has been reckoned that, counting up the cost of the rental, the feeding, the keepers, etc., every Pheasant thus killed means an outlay of £1.

A less expensive way of Pheasant-rearing is to leave them to look after themselves and bring up their families as do the wild members of their class in southeastern Europe and Asia Minor. Left thus they soon grow hardy and self-reliant.

"On one great estate in Hampshire," we are told, "an estate with very extensive woods and heaths, some three thousand out of six thousand Pheasants shot in a season have been wild birds. On a big property in Suffolk, they are scattered all over the estate, and often roost by night in the hedgerow oaks, causing anxiety to the keepers sometimes by doing this right over the public roads. But the greatest area over which the wild

Pheasant is thickly dispersed is the Norfolk heath district. In this extraordinary country, now largely planted, and also much covered with bracken fern, the Pheasant is everywhere."

The roving cat and the blood-thirsty weasel tribe are among the Pheasant's enemies. The poacher, too, has still to be reckoned with, as for centuries past. He has his own ways of bagging this coveted game-bird, and the gun is only one of these; some are ingenious enough.

The late Charles Waterton, who was a land-owner as well as a naturalist, dealt with this nuisance in an original and amusing way of his own. Finding that poachers were in the habit of visiting his fir plantations where the Pheasants roosted, he planted a number of clumps of thick holly bushes. To these dark and impenetrable retreats, the birds had the good sense to retire at night, their old roosting places being taken by roughly carved dummies made of wood and fixed up in the boughs of the fir trees. The next time the poachers paid the plantations a visit Waterton made no attempt to interfere with them, but stayed in his house, laughing to himself at the crack, crack, of the trespassers' shots at the wooden figures in the trees.

A Pheasant's nest is a very poor affair, being usually a mere litter of leaves and grasses, in the midst of which are laid the ten or twelve olive-brown eggs. Its ordinary place is on the ground, but strange exceptions are now and then recorded in the newspapers. A gamekeeper's son, climbing a tree, one day, to raid what he thought was a woodpigeon's nest, found a Pheasant, sitting. The tree was "a slender thorn bush, grown round with ivy," and the nest was about eleven feet from the ground.

A still more curious place for a Pheasant to lay her

eggs in was a water trough! The case occurred two years ago, at a country house near Cheltenham. There were four inches of water in the trough, and the bird, by some strange freak, preferred this queer cradle to any of the handy bushes, planted round the spacious enclosure.

A Pheasant's natural food is grain and seeds and berries, roots and leaves, insects and grubs. But occasionally it fills its crop with hazel nuts, and has even been known to bolt a dead mouse.

The male Pheasant is a pugnacious bird, and to see him launch himself against a farm-yard cock is to see a battle royal. Sometimes the manœuvre by which the Pheasant gets the advantage of his opponent is decidedly amusing. He will fight on till out of breath; then whirr, up he flies into the nearest tree. The cock, furious by this time, runs hither and thither, perplexed to find his enemy missing. The latter, meanwhile, is resting and taking breath, and when poor chanticleer, tired and baffled, is walking off, down drops the Pheasant, rushes at him, engages him for a few moments, and then soars to his perch. It is not surprising that the ruffled barn-door king often quits the battlefield, leaving the honours with the intruder.

Handsome as is the Common Pheasant of our woods and stubble-fields, he has relatives who far outshine him in beauty and brightness of plumage, as well as, in some cases, in size.

Of these none is more resplendent than the GOLDEN PHEASANT. A native of China, this wonderful bird has figured for centuries in the pictures and embroideries of that beauty-loving people.

It is considerably smaller than the Common Pheasant; the length of the cock-bird is usually about three feet, and twenty-three inches are—tail! Here is a summary of its colours: "The head is ornamented with a beautiful silky crest, of a fine amber-yellow. The feathers of the back of the head and neck are of a rich orange-red, edged with a line of black, and capable of being raised at will. Lower down, so as to lie on the top of the back, the feathers are glossy greenish-black. The back is rich yellow; the wings deep blue at their base, the breast and under parts intense scarlet." Could a more dazzling description be true of any other bird?

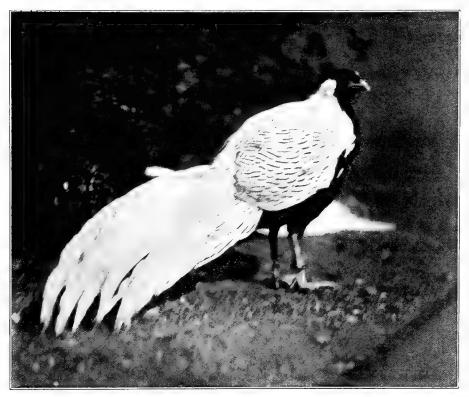
The ruff and the crest are in great demand by flyfishers, for of the brilliant feathers some of their most tempting "flies" are manufactured. Any fish in any river might be excused for leaping at so irresistible a bait.

Fifty years ago, specimens of the Golden Pheasant brought to this country were looked upon as very delicate visitors indeed, and treated much as we treat hothouse plants. But a more sensible way now prevails, and in walking through many estates, especially in the south of England, you may see, as I have sometimes seen, this glorious bird strut out from the coverts and show himself for a minute as he crosses the road or drive.

His true home is said to be the mountainous districts of Western China and Eastern Tibet.

Akin to him is the SILVER PHEASANT, so named because of the pure silver-white of his back and tail—white beautifully flecked with black markings. He also comes from China, as does Lady Amherst's Pheasant, whose colouring is far less gay. REEVES' PHEASANT, a native of north and west China, is the giant member of the whole Pheasant family. The remarkable thing about him is his tail, which sometimes grows to a length of five feet, or even more.

But more interesting, perhaps, is the ARGUS PHEASANT with his four feet length of tail and his starry wings. There are more than a hundred spots on each wing, and these spots are a study in themselves.



Photograph by]

THE SILVER PHEASANT.

[W. S. Berridge, F.Z.S.

When looked at closely the marks resolve themselves into an exact imitation of a cup and ball, the ball lying in the cup. This bird has a trick of raising his long tail feathers almost vertically and at the same time extending his wings, and though he is of sober colouring the effect is very handsome. The Argus Pheasant belongs to the dense wild forests of the East Indies—to the great island of Sumatra, and the Malay Peninsula, and Siam. You will find his portrait adorning the postage stamps of North Borneo. He is a shy bird, loving the lonely depths of the jungle, and you may travel many days through his haunts without seeing him or his mate.

But, by rare chance, a traveller, if his tread be not noisy, may not only espy the two birds but be witness of the strange antics the former goes through in what must be called his dancing ground. This is usually an open space of some six or eight yards square, shut in by thick bushes or cane-brake, and cleared of all dead leaves, weeds, or refuse.

He is scrupulously particular about having this floor kept clear and kept clean, and will spend any amount of time, and go to any trouble, in order to remove anything which he thinks should not be there.

It is often only by erecting a trap in this dancing ground that the Malay natives are able to capture this solitude-loving bird, and the traps have to be, and certainly are, of a highly ingenious kind.

Mr. Davison, the traveller and naturalist, relates how he stalked an Argus Pheasant (I think in Tenasserim).

While waiting to get a good shot he beheld a male Fireback Pheasant coming running into the "drawing-room" of the Argus, and begin to chase the rightful owner round and round the space. The Argus seemed to have very little pluck, though he was clearly very unwilling to abandon his playground. But at last he bolted into the surrounding jungle.

The Fireback then adopted a "King of the Castle" attitude and manner, making a curious whirring flutter

with his wings. This brought the runaway back, and he returned to the charge—if I may use such a phrase, for there was no fighting in the real sense. A dozen times he came and a dozen times he turned tail. How the encounter would have ended cannot be told, for a rustle made by the naturalist set both birds scudding off into the forest.

THE ALBATROSS.

SOUTH of the equator line, away down in those great wildernesses of ocean, where the long rolling billow can travel for thousands of miles without breaking on any coast or island crag, the Albatross has his home.

Where go the sailing ships there goes he, hovering easily above the white clouds of canvas, and gliding forward without effort and without rest. In fancy one might take him to be an attendant spirit, sent to companion the vessel with its freight of precious lives. For he seems to "come from nowhere"—appearing suddenly and unexpectedly; then hour after hour, and day after day, he keeps the ship in sight through squall and sunshine; till one day the deck-hands miss the familiar movement of the long grey wings, and lo! he has vanished, and the vessel is plunging onward alone.

If the truth be told, the Albatross has very little of the guardian angel about him. And as for watching over the lives of "poor Jack" and his messmates the great bird has shown an ugly disposition to attack the sailor who falls overboard and is drifting helplessly away.

For that, however, we must not judge the Albatross too hardly. He has an immense appetite, and all is lawful food that comes in his way, especially if he finds it lying on one of his own sea-paths, as if abandoned to him.

It is not his voracious appetite, but his flying powers, that are so wonderful. Seen at rest on some seagirt rock, with pinions folded, he looks a compact heavy bird; but when once he rises and shakes out his immense wings, and goes gliding forward between sea and sky, where is the bird that can compare with him? And, thus launched in flight, he can hold on his course tirelessly for days together!

From wing-tip to wing-tip, the average measurement usually given by present-day naturalists is eleven or twelve feet; but I find, in a carefully compiled natural history of fifty years ago, mention is made of "a specimen in the Leverian Museum measuring thirteen feet; while Ives describes one, shot off the Cape of Good Hope, which measured seventeen feet and a half from wing to wing."

Mariners in earlier days brought home stories of these magnificent ocean fliers, and mention is made of them in many an old book. One of these, Shelvocke's *Voyages*, gave an idea to the poet Wordsworth which helped towards the making of one of the most famous poems in the English language, namely, Coleridge's *Ancient Mariner*.

The two poets had talked over the subject of the poem, which was to be about a sailor of olden days who should be condemned, on account of some crime, to wander unrestingly about the world. Of course, most of it was Coleridge's own invention, but Wordsworth suggested part of it.

"I had been reading in Shelvocke's Voyages, a day or two before," he tells us, "that while doubling Cape Horn they frequently saw Albatrosses in that latitude, the largest sort of sea-fowl, some extending their wings twelve or thirteen feet. 'Suppose,' said I, 'you represent him [the Mariner] as having killed one of these birds on entering the South Sea, and that the guardian spirits of these regions take upon them to avenge the crime.'"

Some of you know in what a wonderful way Coleridge wove this idea into his poem. He shows the little ship beset with ice and mist in the South Polar Seas, when, like a messenger of hope, the bird came sailing past.

"At length did cross an Albatross:
Thorough the fog it came:
As if it had been a Christian soul,
We hail'd it in God's name.

It ate the food it ne'er had eat,
And round and round it flew.
The ice did split with a thunder-fit;
The helmsman steer'd us through.

And a good south wind sprung up behind; The Albatross did follow, And every day, for food or play, Came to the mariners' hollo!"

Wantonly the Mariner shot the bird, and then slowly but surely ill-luck began to dog the ship. She ran northward into a tropic calm, and the horrors of thirst under a burning sun turned the thoughts of the crew to the killing of the innocent sea-bird, which had brought such a judgment upon them all.

"Ah! well-a-day! what evil looks
Had I from old and young!
Instead of the cross, the Albatross
About my neck was hung."

So through the dreadful days and stifling nights he does penance for his crime till his hard heart grows soft with love and sympathy, and even in his pain he blesses the very water-snakes that he has been watching at play below in the shadow of the ship:—

> "A spring of love gush'd from my heart, And I bless'd them unaware!

The self-same moment I could pray;
And from my neck so free
The Albatross fell off, and sank
Like lead into the sea."

There are people now, as there were people then, who would not hesitate to lay low an Albatross if thereby they could get a few minutes' amusement. James Anthony Froude, the historian, tells, for example, how on his voyage out to Australia, some of his fellow-passengers spent much powder and shot aiming at these birds as they wheeled round the ship: "One Albatross, I am sorry to say, was hit at last. It fell wounded into the water, and in a moment the whole cannibal flock was tearing it to pieces. Not a pleasant sight," is his comment, "but how about the human share in it?"

Another pitiless sport is angling for Albatross. A long line with a hook at the end baited with blubber is thrown overboard and drifts out astern of the ship. The bait is soon espied by the keen-eyed bird who swoops down upon it. But as he rises and begins to make off, a sudden tug fastens the hook in his beak. Then begins a struggle. The bird hangs back, and if he is near the surface squares his wings in the water, and is very hard to draw in. But if he rises high in air, he can be "drawn down on deck like a boy's kite," as one writer puts it.

The greediness of the Albatross always lays him open to such a trick. Poor fellow! in his wanderings over those desolate seas he often must go for a day or two without food; so that when it is to be had in plenty—as, for instance, when he comes across the floating carcase of a whale—he will gorge himself till he cannot rise and pursue his way.

He much prefers to find his food on the surface, rather

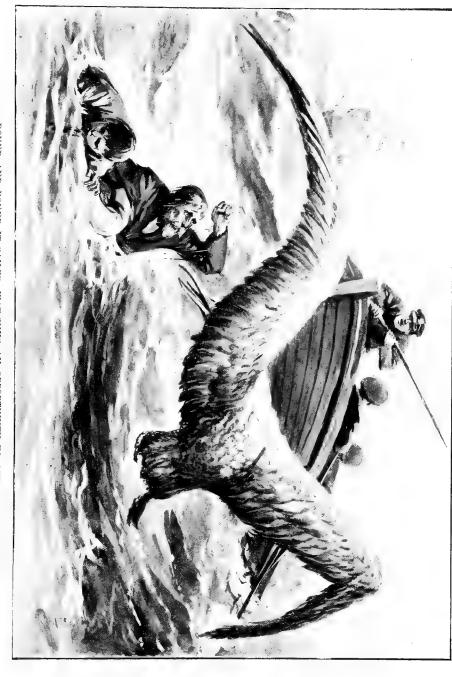
than dive after fish. If a tempting piece of offal arrests him, he comes down to it in a manner as ungainly as his flight is graceful, with his two broad webbed feet widely apart, as they strike the water.

To rise into the air again is for him another clumsy exercise. He takes a long paddling run upon the surface, urging himself onward with much flapping of the wings, tucks up his legs, and shoots forward into the air. Once launched, he can easily skim or soar to suit his own pleasure.

But to be seen at his best, an Albatross must be watched in mid-career. "He wheels in circles round and round and for ever round the ship," writes Froude, in his *Oceana*, "now far behind, now sweeping past in a long rapid curve, like a perfect skater on an untouched field of ice. There is no effort; watch as closely as you will, you rarely or never see a stroke of the mighty pinion.

"The flight is generally near the water, often close to it. You lose sight of the bird as he disappears in the hollow between the waves, and catch him again as he rises over the crest." But how he rises Froude confesses he cannot understand. Whence comes the force that bears the bird onward? That is a question which even scientists are not quite sure that they can explain. "When he turns to ascend or makes a change in his direction, the wings then point at an angle, one to the sky, the other to the water."

The length and strength of those wings of his mark him out as a creature of the air, just as his broad feet suggest the strong swimmer. Ashore, he is not happy. As Mr. Frank Bullen says, in one of his *Sea Idylls*, he can scarcely balance himself on land, and the rough



ROUND AND ROUND IT SAILED, WATCHING AN OPPORTUNITY TO ATTACK THEM. [Drawn by Coldron Pearse.

surface of the ground tears and bruises the soft webs of his feet.

But come ashore he must at certain times. For a home has to be made, and he and his mate have to see to the rearing of their downy white baby.

The Albatross nurseries are to be found on the high tablelands of some of the desolate islands in the Southern Ocean, such as Tristan d'Acunha and the Falkland Isles. The nest is merely a mound of mud and grass, with a slight hollow in the centre. The parent birds arrive at the spot and begin preparations in October; but the one egg is not hatched till January. Even then the little creature is not ready to fly away for several months.

In some of these nurseries, which now alas! number only about half a dozen, the birds, while they are sitting, will allow a human intruder to walk in and out among the nests, without stirring or becoming scared.

One species of Albatross is found in the North Pacific, and has its nurseries on the island of Laysan, in Hawaii. Here the friendly owner of the island protected them from being molested and they became very tame. But now the carting away of their eggs has become a regular business, and one wonders how long the birds will remain, in face of this interference.

An American magazine, a year or two ago, called attention to the curious antics of these Laysan Albatrosses. "These birds," says the writer, "sometimes perform in pairs a kind of dance. Two of them approach one another, nodding and making profound bows. They cross their bills, produce snapping and groaning sounds, rise on their toes, puff out their breasts, and finally part, with more nodding and bowing, only to come together again and

repeat the performance. Occasionally three engage at once in this singular amusement."

But the Albatross when afloat can be a very formidable and fearsome enemy to man when the latter happens to be at his mercy. His beak is capable of splitting a man's skull, as easily as an eggshell, and ugly stories now and again remind us, as I have said already, that this great bird, like some of the bigger gulls, has an unpleasant habit of swooping down upon any helpless creature, animal or human.

Such an instance occurred in 1885, when a merchant seaman, Thomas Averett Whistler, won the Albert medal for an act of great heroism. He was chief mate of the ship *Ennerdale*, of Liverpool, which at that time was rounding Cape Horn. About half-past five in the afternoon he was asleep in his berth (it being his turn below) when the call to man one of the boats startled him, and he rushed on deck. He found that one of the seamen had leaped overboard to the rescue of an apprentice who had fallen from the rigging.

Whistler called for a lifebuoy to be thrown to him, and sprang over the side. Getting hold of the lifebuoy he swam to the man (the apprentice had sunk) and supported him in the water. It was freezingly cold, with a fresh breeze blowing, but Whistler kept hold of the buoy and the exhausted seaman.

Then out of the sky there swept down upon them both a white bird with enormous wings. It was an Albatross. Round and round it sailed, eyeing them greedily and watching its opportunity to attack them. Again and again it came near, and time and again Whistler by shouting and flourishing his disengaged arm drove it away. Would the boat never come? It did at last, but

not until forty minutes had elapsed, which must have seemed a lifetime to the two helpless sailors.

Both of them swooned away on being dragged into the boat by willing hands. The Albatross hovered above them with cries of disappointment, till one of the crew drove it away by vigorously brandishing a boat-hook.

THE EAGLES.

If the kingdom of the air is the birds' true kingdom, the Eagle has first claim to be called king. It is a high claim, and, like the lion's title among beasts, it has been challenged again and again. Yet to what other feathered creature can the place of honour be given?

True it is that the tremendous wings of the white-breasted Albatross, sailing league after league through the vast sea-spaces of the South Atlantic, carry him where the eagle would not dare to go. True, also, that this king has no royal robes like the Golden Pheasant, or the Peacock, or the Bird of Paradise. True, yet again, that even among his own tribe of plunderers and flesh-snatchers, the Condor of the Andes exceeds him in size and flight.

Nevertheless, when we think of his stately bearing, his commanding eye, his mighty wings, his fearful beak, his taloned feet, so quick to seize, so strong to retain, the right of the Eagle to keep the title he has borne so long, seems to us a thing beyond dispute.

From ancient days when the kings and conquerors of this world of ours were robbers and plunderers, too, in all but name, and observed the simple old rule—

"That they may take who have the power, And they may keep who can,"

the Eagle has been acknowledged to be the most royal of birds.

Four hundred years before the birth of Jesus Christ, the Persians, at the battle of Kunaxa, bore into the fight an Eagle raised on a spear, as a standard. Three centuries later the silver eagle standards of the Romans began to overrun the world. They came with Cæsar to our own little island, where all was wild heath and marsh and forest, and where the real Eagles screamed at the intruders on their solitudes. In the Middle Ages the shields and banners of this or that king and count and feudal chief began to show the red or the black Eagle emblazoned upon them. Later, Napoleon and marshals carried the new French "Eagles" right across Europe. And to-day the three great military monarchies—Russia, Germany, and Austria—have the doubleheaded Eagle as their emblem, while the great Republic of the New World has chosen this bird as symbol of the power that guards "the star-spangled banner." All this is proof positive of the reputation which the Eagle bears, and has ever borne, for royal dignity and courage.

Perhaps a still more striking use of the Eagle as a symbol was shown by the old Romans when they celebrated the funeral rites of one of their emperors. When the funeral pile had been built up and set on fire—a mountain of wood, in the midst of which lay the dead body of the man who had ruled the world—it was their custom to let loose, from the pinnacle of the pile, a bird, to represent the soul taking flight from earth to heaven. And the bird that was chosen was always an Eagle: no lesser bird might do, for a Roman emperor.

Not only the warriors but the poets and teachers of the world have had their eyes upon the Eagle from the earliest times. The writers of the Old Testament have used language about him which we do not easily forget. It is true that the word "Eagle" should in some cases be translated "griffon vulture" (also a grand-looking bird), but many of the allusions may well be to the real Eagles, at least three or four species of which are dwellers in the Holy Land.

It would, indeed, have been very strange if those old writers had not noticed such splendid birds. As it was, they observed them closely—their boldness, their swiftness, their power of soaring, their strength of wing, their tender care of their young. One beautiful verse, from the Book of Deuteronomy, will be remembered by many of my readers: "As an eagle stirreth up her nest, fluttereth over her young, spreadeth abroad her wings, taketh them, beareth them on her wings: so the Lord alone did lead him."

As to this last-named habit, a nineteenth-century scientist, Sir Humphry Davy, gives a striking illustration. "I once saw a very interesting sight," he says, "above the crags of Ben Nevis [the highest mountain in Scotland]. Two parent Eagles were teaching their offspring, two young birds, the way to fly. They began by rising from the top of the mountain, in the eye of the sun. It was about midday and bright for the climate. They at first made small circles, and the young birds imitated them. They paused on their wings, waiting till they (the eaglets) had made their flight, and then took a second and larger gyration [circling], always rising towards the sun."

The watcher saw the young birds copying closely the example of their parents, rising higher and higher, and ever circling, their little wings moving more freely and more strongly as they mounted into the clearer, brighter air. At last the dazzled eyes of the watcher could follow

them no more, and the four specks were lost to view in the shining distance.

Marvellous must the eye of an Eagle be to gaze, as it does, unblinded and unblinking on the midday sun in his glory. Our forefathers wondered at this, as we do to-day. Indeed, they had strange stories to tell which were more quaint than true. Here is one curious fancy which I find written in a book of monkish lore, put together in the early years of the Middle Ages:—

"There is one manner [kind of] Eagle that is full sharp of sight, and the taketh her own birds in her claws, and maketh them to look even on the sun, and that ere their wings be full grown, and except [unless] they look stiffly and steadfastly against the sun, she beateth them, and setteth them even tofore the sun. And if any eye of any of her birds watereth in looking on the sun, she slayeth him, or else driveth him out of the nest and despiseth him."

Another strange and ancient belief was that the Eagle, when he was old, renewed his strength and his failing eyesight in the following manner: Guided by instinct, he sought far and wide for "a well of springing water." Having found one, he soared up into the air towards the sun, and when his body had grown heated with the sunwarmth and the great exertion, he closed his wings and let himself fall into the water. The sudden shock of the cold plunge-bath wrought a wondrous transformation. The old feathers fell away, new plumage began to grow, the dimness of sight passed, and with great, strong wingbeats the bird rose again into the air, young and vigorous once more.

Another version of this fable made him drop into the sea. This was believed, or half believed, even as late as the days of Queen Elizabeth. When you read Edmund Spenser's famous poem, *The Faerie Queene*, you will come across a reference to this fancy—

"As eagle, fresh out of the ocean wave,
Where he hath left his plumes all hoary gray
And deckt himself with fethers youthly gay,
Like eyas-hauke 1 up mounts unto the skies,
His newly-budded pinions to assay,2
And marveiles at himselfe, stil as he flies."

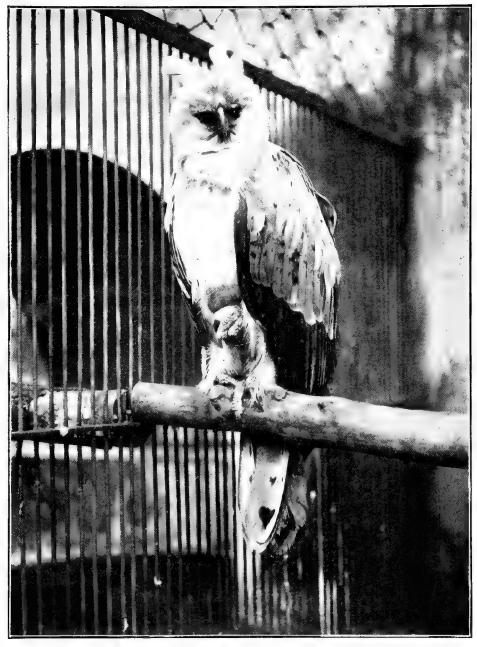
An Eagle kills his prey not with the beak but with his muscular feet and sharp claws. When he swoops upon hare or grouse, he drives his claws into the victim's body, and usually carries it off through the air without pausing in his flight. The grip is tremendous.

An Irish gamekeeper once had cause to remember the fact. It was in County Meath, and he had come upon an Eagle sleeping off the effects of a heavy meal. The bird had been dining off a dead sheep, and the man crept up noiselessly and threw his arms round it, wishing to capture it alive. The startled bird had vigour enough to drive its talons into its assailant's chest, and the keeper thereupon strangled the fierce creature. Even then he could not unlock the grip of those claws, and finally he had to cut off the bird's leg, and walk to the village dispensary to have it removed.

Occasionally, when hunting, an Eagle swoops down and strikes "not wisely but too well." That was so in the well-known instance where a large pike was the victim. The fish dived, pulling the bird under water, and eventually drowning it. In several cases the feet have been found still fixed in the fish's back, and once, at least, the skeleton

¹ A young hawk, newly fledged and fit for flight.

² His new wings to try.



THE HARPY EAGLE.

of the bird and the fish have been drawn up out of the loch or lake where they had struggled together and died.

It was an ignoble fate for the king of birds, yet not so fraught with suffering as that which befell a Highland Eagle, which had managed somehow to get its leg caught in a vermin-trap. Flapping and tugging, the great bird had succeeded in pulling up the peg by which the trap was secured and flying away with it bodily. The narrator of the story, several weeks afterwards, happened to pass a tree from one of the higher branches of which dangled a curious object. He went nearer to examine it, and found that it was the Eagle-hanging head downwards, quite dead. The poor creature in flying away had got caught and held by the dangling trap and chain, which were entwined in the branches. Able neither to fly onward, nor to shake off the burdensome weight, the poor bird had simply starved, and at last weak and faint it had fallen from its perch, and had died miserably.

No chapter about Eagles would be thought complete—especially by boys and girls—without one or two stories of babies' being carried off by this fierce bird of prey.

Let me begin by saying that such events are really very rare. In fact, were it not that tiny children are seldom left out of doors altogether untended, one might expect such a thing to happen more frequently. For an Eagle's appetite is enormous, and when it has hungry nestlings to feed as well, it will swoop on all manner of creatures, which ordinarily it would not molest. And it will often do so in the most plucky and daring way, carrying off bird or animal under the very eyes of a man.

Mr. Scott Rankin tells me that in Ross-shire, only a year or two ago, one autumn day, a child was seized by a Golden Eagle at the very door of a shepherd's cottage,

and carried off to its eyrie. A search-party was got together, and the child was found, quite dead, in the nest some miles away.

A happier fate was that of a little Irish baby, who was pounced on as she lay beside the wall of a potato patch, in one of the wildest parts of Donegal. The father and mother were working close by, and loud was the outcry as the great bird was seen flying off towards its nest. Calling to his neighbours, the poor father hurried off to the mountain, on a ledge of which the nest was known to be. The rock was steep, and looking down from the top the rescuers might well shake their heads at the dangerous descent. But no time was to be lost if the child was to be saved. They could see its clothes fluttering in the nest, as the wind blew round the crag. Then one man began to scramble down towards the ledge.

The Eagle grew uneasy at the sight of some one approaching her nest. She guessed, as birds and animals will, what it was that made him come, and suddenly catching up her strange prize in her strong claws, she rose into the air, and flew away with it to a great distance. The search-party watched her with despairing eyes, but presently they saw the long wings sail lower and lower, and she alighted on the ground. The next moment she again rose into the air and they could see that she had left the baby lying on the grass.

You may imagine with what joyful speed they set forth running to fetch the baby who had survived those two wonderful journeys through the air. Few indeed are the children who have had an Eagle's nest for a cradle, and have lived to be told the story.

¹ I am indebted for the substance of this story to my friend Mrs. Luddington, who visited the spot some years ago.

South Africa has its Eagles, and one of these had been plundering the flocks of a Boer farmer near Barberton. Lying in wait one day with his gun, for a chance shot at the marauder, the Boer saw the fierce bird swoop down upon the child of one of his Kaffir servants, and fly off with it. It flew swiftly, but a rifle bullet is swifter. Down tumbled the robber, his talons still clutching the child. Both fell together into a thorn bush. The bird, a very big one, was dead; the child, except for some scratches, was unhurt.

A Russian village was the scene of another attack by an Eagle. A peasant woman was walking along, followed by her little two-year-old boy who was playing with his ball as he went. Suddenly the child began screaming, and turning round she saw, to her horror, that a great Golden Eagle had flown down, and was trying to lift and carry him away. He was a sturdy little fellow, and was almost too heavy for even those great wings to fly off with. Twice the strong talons gripped him and he was lifted from the ground, and twice they let him fall.

If no helper had been near, the poor little fellow would probably have been killed. But happily his mother's loud cries were heard. A man came running up, and with sticks and stones assailed the angry bird till it desisted, albeit very unwillingly, from its attempt, and flew away.

The child's head was badly torn and bruised, and it must have been many a day before the wounds healed and the dreadful fright was forgotten.

But these attempts to carry off little children are, as I have already said, by no means common. The Eagle's true food is the mountain hare, or the fish of lake and sea, or the dead sheep that no one wants. As a rule he is only too anxious to keep out of reach of human beings.

He prefers the lonely solitude where paths are few and footsteps are still fewer.

We must not let such stories as I have been recalling spoil our admiration of this magnificent soarer and sailer, whose presence lends romance to glen or moorland.

Do all my readers know Tennyson's description of an Eagle swooping from his dizzy watch-tower on the craggy cliffs overlooking the sea?—a perfect picture in six lines—

"He clasps the crag with crooked hands; Close to the sun in lonely lands, Ring'd with the azure world, he stands.

The wrinkled sea beneath him crawls; He watches from his mountain walls, And like a thunderbolt he falls."

Is not that a wonderful piece of word-painting? How well some of us know that "wrinkled sea"! But few of us have seen it with the Eagle swooping. Dr. Stopford Brooke, in his book, *The Art of Tennyson*, which I hope you will read some day, tells us how he had the great good fortune to see both.

"One day," he says, "I stood on the edge of the cliff below Slieve League in Donegal. The cliff from which I looked down on the Atlantic was nine hundred feet in height. Beside me the giant slope of Slieve League plunged down from its summit for more than eighteen hundred feet.

"As I gazed down on the sea below, which was calm in the shelter, for the wind blew off the land, the varying puffs that eddied in and out among the hollows and juttings of the cliffs covered the quiet surface with a network of ripples. It was exactly Tennyson's 'wrinkled sea.' Then by rare good fortune, an Eagle which built on one of the ledges of Slieve League flew out of his eyrie and poised, barking, on his wings; but in a moment fell precipitate, as their manner is, straight down a thousand feet to the sea."

It was indeed Tennyson's word-picture seen in real life. Everybody who has seen an Eagle on the wing has seen a wonderful sight, especially if the bird be one of the grander members of the family, such as the Golden Eagle. Dr. Bowdler Sharpe says: "I have seen nothing finer than the flight of the Eagles in the Himalayas, soaring round and round, high in the air, without any apparent motion of the wings, the ends of which are slightly upturned in soaring. . . . It is when the Golden Eagle is on the wing that we can understand why its majestic movements inspired the idea that it was 'the King of Birds.'"

The GOLDEN EAGLE is the species that we hear most about in the British Isles. For not only is he one of the few members of his tribe who are fairly frequent visitors here, but in certain places he may still be found as a resident, and a carefully protected one.

There is something rather romantic about his name, and plenty of people talk about the Golden Eagle, who know the name of no other. As a matter of fact, unless the sun is shining very brightly on his feathers, the name does not seem very well deserved. Indeed, some of his number who nest in the islands on the west coast of Scotland, and are darker than those found on the mainland, are given the name of "iolair dhubh," *i.e.* the Black Eagle.

The colour of the plumage is brown—often richly dark on most parts of the body, but lightening and brightening on the head and neck into a rich golden red, which quickly catches a sun-gleam. Grey-brown feathers clothe the legs and sides of the thighs. The tail is usually a deep grey marked with several regular dark brown bars.

All this looks dull and sombre enough under a cloudy sky, but seen as Miss North, the lady traveller, tells us she saw these grand birds in India, they make good their name: "Great Golden Eagles came rushing across the deep valley, looking really golden in the slanting rays of the sun."

The male bird is often three feet in length, the female is six inches longer. When the great wings are outstretched the span is nine feet! How serviceable they are to their owner every observer knows. Charles St. John, who knew so well all the wild creatures of his native Highlands, says:—

"I have almost every year, during my stay in Morayshire, seen the Eagles occasionally passing, at the beginning of winter, invariably going southwards, and again early in spring on their return northwards; in windy weather flying low, but when calm cleaving the air at a great height. The Eagle's flight, when passing from one point to another, is peculiarly expressive of strength and vigour. He wends his way with deliberate strong strokes of his powerful wing, every stroke apparently driving him on a considerable distance, and in this manner advancing through the air as rapidly as the pigeon or any other bird which may appear to fly much more quickly."

It is not only when he rises to a lofty height that an Eagle's strength of wing is seen to advantage. Watch two Eagles hunting together. While one of them holds aloof, the other "beats" the covert, flapping noisily among the bushes and brushwood, often screaming, and in short, making a grand commotion. The consequence is that the birds and animals lurking there are seized with

panic, and generally lose their heads before they lose their lives. They run out from their hiding-places and scurry hither and thither. Then, like an arrow from an unseen

bow, the Eagle's mate swoops down, and the great claws take toll of the frightened hill-side folk.

It is no uncommon thing, indeed, for Eagles to use strategy. One of their manœuvres is very much like the trick practised by the Redskins in the days when thousands of "buffalo"



BATELEUR EAGLE "DISPLAYING."
[W. S. BERRIDGE, F.Z.S.

roamed over Photograph by] the prairies.

When the Indians could not get sufficient meat and hides by overtaking and shooting the great, shaggy-headed beasts one by one, they used to close in upon them from a distance and drive them straight towards some cliff or rocky declivity, and by yells and hootings frighten them into rushing over the edge.

In like manner an Eagle will sometimes watch a sheep moving along the mountain-side, wait till it is close to the edge of a precipice, and then assail it fiercely and suddenly. With strong flappings of his wings the Eagle will do his best to knock the sheep over the brink, and occasionally he succeeds. Then he flies down to the killed or crippled animal, and enjoys his prize. St. John mentions how he has seen an Eagle come rushing down on a pack of grouse, and flap and flutter his wings in such a bewildering manner that before the frightened birds know what is overshadowing them two or three of their number have been whisked away in the grasp of those great claws. And this, too, under the very eyes of the sportsman with his gun and his dogs.

The Golden Eagle prefers to find his dinner waiting for him, in the shape of a dead sheep or deer, to pursuing and striking down some lesser animal. He likes to be saved the trouble. But occasionally an exciting story of a bolder attack gets into the newspapers.

Let me relate one incident that happened a good many years ago, but which I have never forgotten. No more romantic story of wild life ever came from that land of romance, the Scottish Highlands. It was a sight witnessed only by two foresters, and many a lover of wild nature would have paid a large sum of money to see what those two humble Highlanders saw that day.

In a lonely hollow among the hills near Strathglass, a herd of red deer were quietly feeding. The leader of the herd was a stag with splendid antlers, a strong, vigorous animal. High overhead sailed a Golden Eagle. The herd did not seem to have observed the great bird, or perhaps had seen him and taken no further notice.

Suddenly, without warning, he fell like a thunderbolt upon the neck of the stag. The shock must have been tremendous. Amazed and indignant the antlered warrior staggered and bounded away, tossing its head and trying to shake off its assailant. The Eagle only drove his claws in deeper and buffeted his victim's head with his wings, while his beak dealt blows that cut deep.

Presently, with a long backward sweep of its great horns, the stag dislodged the Eagle and dashed him into the heather; then, torn and bleeding, galloped after the frightened herd. But the Eagle, now not only daring but furious, rose and followed. This time he fastened on the flanks of the stag, just out of reach of those sweeping antlers.

Mad with pain and scared by its persecutor's persistent attacks, the poor stag put its head between its knees, like a cowboy's buck-jumping horse, and flung itself over so as to fall on the bird. This it did several times, bruising and battering its enemy. But the redoubtable Eagle could not be persuaded to give up the combat. Only when his intended victim escaped into the friendly shelter of some pine woods close by did he see that pursuit could go no further, and he rose and soared away.

The two foresters were near enough to see that the bird was one of the large Sutherlandshire Eagles—a splendid creature in good plumage. The encounter was a rare one indeed, and the story is almost unique. But it may be

¹ Some years ago Sir Charles Mordaunt witnessed a very similar battle between a Scotch Eagle and a stag. The bird singled out the animal, drove it from the herd, struck it with his wings, knocked it down, and eventually killed it.

that in such wild places as Strathglass, where there are but few eyes to notice what goes on, stranger things happen than are recorded in books.

Mr. Scott Rankin, whose beautiful drawings of Highland scenery and wild life are well known, sends me the following notes as to the boldness of the Golden Eagle: "They prey," he says, "on every other species of bird and beast which they can successfully attack, though they also relish carrion wherever it is to be found. They have been known to attack a forest pony which was left browsing near their home; also they have been known to drive roe-deer over a cliff when they could not accomplish their death otherwise. They frequently attack the kids of the wild goats and the young of the red-deer, also lambs and of course every kind of small game. Natural histories speak of the Eagles as rather timid and shy, but from what I have seen of them and heard of them from the stalkers, they appear to be just the reverse. One of them 'stooped' and picked up a grouse from near the feet of a stalker at Lochbuie, though he ran at it and threw his stick at it as it rose."

Another Scottish observer says: "I have seen an Eagle seize a dog by the head, and but for my belabouring the savage bird with a stick it would have killed the dog in a short time. Positive proof is recorded of a fox being killed and partly devoured by an Eagle."

This same writer once robbed a Golden Eagle's nest in Ross-shire—to save the Eagles! This was the reason: The neighbouring farmers had been complaining of lambs' being carried off, and asked that the two robbers might be shot. The keepers on the estate consulted him about it, and he wisely suggested that as the birds only stole the lambs when they had hungry nestlings to feed, the

best way would be to steal the ravenous babies and spare the parents.

This proved to be "easier said than done." The nest was in a most inaccessible position. But a long new cart rope, specially purchased in Edinburgh, enabled the writer to be lowered over the cliff and let down to a ledge, some eight or ten feet wide, on which the Eagles had built their nest. He confesses that had he known the difficulty and danger attending such an adventure a thousand pounds would hardly have tempted him to undertake it.

Here is a picture of what he saw on the ledge. "In the centre of it lay a great number of sticks, some of them of large size, being fully six feet long, and at one end nearly as thick as a man's wrists. Some of the smaller branches were Scotch fir and must have been carried a long distance. Among the sticks was entwined a stag's antler. The lining of the nest was composed of heather, grass and wool.

"In the centre of the nest, closely huddled together, were two wee downy eaglets, evidently only recently hatched. A few yards off I saw what was evidently the larder of previous years, as the bleached remains of lambs, fawns, hares, rabbits, and different game birds were thickly strewn around; while a grouse plucked and partly devoured lay nearer the nest."

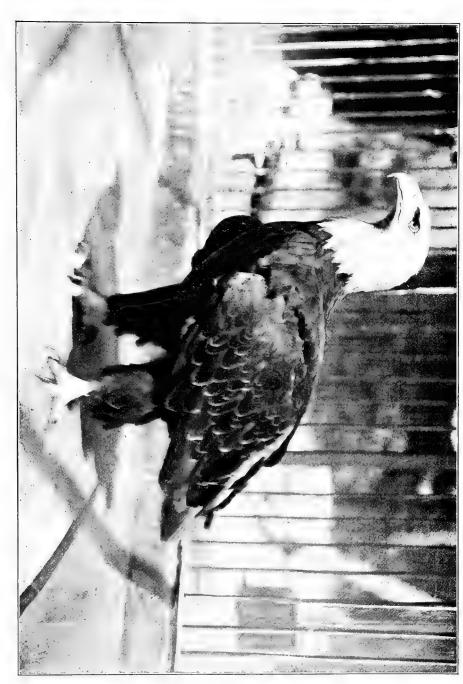
The explorer of the eyrie, who related his adventure about four years ago in the *Scotsman*, put an eaglet into each of his coat-pockets, and was drawn up the precipice. "For a short distance I had no footing. The rope began to spin round, and I was rather roughly jolted against the rock, with the result that both eaglets were killed. I brought them home, however, and they may now be seen, stuffed, in the Royal Scottish Museum."

Until the middle of the nineteenth century, the landowners in the Highlands used to allow their keepers to shoot or poison every Eagle they could reach. It is recorded that within three years—from March 1831 to March 1834—in Sutherlandshire alone, one hundred and seventy-one adult birds and fifty-three nestlings and eggs were ruthlessly destroyed. But when the deadly work had gone on for some time and the sight of a hovering Eagle had become almost as rare as in the Southern counties of England, the foolishness of such slaughter came to be seen and repented of.

For although the Eagle takes his share of the game so jealously preserved for shooting, he more than pays for his robberies by the useful work which he does in keeping down the number of small fry among the birds and animals on the estate. Most of the landlords began to give orders for the sparing of these glorious raiders. To shoot an Eagle grew to be looked upon as a crime. As a result, the Golden Eagle now holds its own in Scotland, at all events in the western and northern districts.

All honour, however, to such wise landowners as the Marquis of Breadalbane, who gave refuge in his splendid deer forest of Blackmount in Argyllshire to the whole Eagle tribe—as many stragglers as would come—while the persecution was still going on, and while still it was the fashion to try to exterminate them. I have recently heard that the Golden Eagle builds there still.

It is believed that if the stealing of eggs could also be stopped, the numbers of Eagles in the Highlands would at once greatly increase. From two to four eggs may be found in the Golden Eagle's nest. They are usually white, but sometimes mottled and marked with reddish blotches.



It is long since the Golden Eagle nested in England, though two and three centuries ago the great bird was by no means an uncommon sight even in the south. In 1668, a nest found in the Peak district of Derbyshire was described by the famous naturalist, Francis Willughby, in whose day it was said to haunt the crags and precipices of Snowdon. A hundred years ago, or less, it nested in the wilder parts of the beautiful Lake district.

From time to time, a newspaper paragraph reports the visit of one of these giant birds to our south-eastern and south-western shires—to Kent and Surrey, to Dorsetshire and Hampshire. For instance, one was shot near Salisbury in February 1905, and another near Blandford in February 1908.

A good many supposed Golden Eagles seen or shot in England are really young White-tailed Eagles, probably visitors from the Continent. They ought easily to be distinguished from the Golden Eagle, for their legs are not clothed with feathers.

In Ireland, the Golden Eagle has had an ill time, of late years. There are no great landlords, as in Scotland, willing and wishful to preserve and protect him, and he is fast disappearing. In 1907 one observer, Mr. John Walpole Bond, writing to the *Field*, reckoned that there must be only about a dozen pairs left in the island. These could only be found among "the loneliest and most romantic mountain ranges of Donegal, Mayo, and possibly of Galway and Kerry."

Mr. Bond spent days watching one of these survivors, in County Mayo. It was a male bird whose mate had died (poisoned, very likely, by some of their many human foes). He still loved to keep near his old eyrie which was "some four hundred feet down a fearsomely

overlapping piece of cliff, about nine hundred feet high "— not to be got at by the cleverest rock-climber in the world.

"One afternoon, whilst rambling along this piece of coast I noticed the Eagle about four hundred yards distant, standing in solitary grandeur on a nose-shaped rock, the highest point of a gigantic cliff. . . . I actually got within a few yards of him, from which distance, crouched behind a convenient boulder, I watched him for fully ten minutes. . . . Presently, he must have fancied something wrong, but he was by no means startled. He simply expanded his ample wings, and, dropping leisurely off the pinnacle, slid over me within fifteen yards, bending his broad head down to stare at the disturber of the peace."

The usual note of the Golden Eagle, says Mr. Charles Dixon, who has seen much of him, is a yelping or barking cry. It is rarely uttered, but when heard it has mostly been in the early morning, or when the great bird is provoked past endurance by smaller birds who combine to mob him.

Outside the British Isles the Golden Eagle is to be met with in most of the mountainous parts of Europe and North Africa, as well as right across Asia to Kamtchatka and Japan. And it is also found in the northern parts of North America.

In Turkestan this Eagle is put to the same use as the falcon was by English gentlefolk in the days of Good Queen Bess and many a king and queen before her. Captain H. Bower, in the *Geographical Journal*, has the following note on the fact:—

"At the place where we camped after descending from the pass, a shepherd resided who owned a fine Golden Eagle. These Eagles are much used for hunting gazelle, foxes and hares in the flat country through which the Kashgar and Yarkand Rivers flow. It is capital sport, and during the time I was in that country I was fortunate in seeing some of it. The Eagle, on being released, does not go off nearly so quickly as a hawk, but takes some little time overtaking the quarry; and in the meanwhile, if the quarry is a gazelle, the hunters must ride as hard as their horses can go, as the Eagle, on overtaking it, simply settles upon it and turns it over. If no one is ready to come to the Eagle's assistance, the gazelle gets free, while the Eagle sits still on the ground, refusing to rise."

Another Eagle which occasionally visits the British Isles is the SPOTTED EAGLE. Its real home is the swampy forests of Russia, Turkey, and Germany. It builds its large flat nest of heaped up sticks usually on some stout beech tree, sometimes in an oak or fir. It feeds on frogs, snakes, insects, and occasionally carrion. There are three kinds of Spotted Eagle.

The IMPERIAL EAGLE is far more like the Golden Eagle (a white patch on the shoulder feathers is the distinguishing mark) but it does not visit Britain. It is a tree-builder, and loves the thick forests of Southern Europe and Asia.

BONELLI'S EAGLE is found in many countries of Southern Europe and North Africa, but seems to be rare in all—just a pair here and there. So to see one of these birds is a thing to remember, and to have found and reached its nest is something to remember for a lifetime. For this Eagle is noted for choosing the most dangerous and unapproachable places for nesting in—"places that make one's flesh creep to look at," says the author of Wild Spain.

Mr. Lodge, when in Spain, was keenly anxious to sight

one: at last news was brought to him that one of these Eagles had built in the neighbourhood. "The nest," he says, "was situated in an isolated rocky crag, perhaps one hundred feet in height, in the middle of a plain. As we approached, guided by two goat-herds whose flocks were grazing near by, a Bonelli's Eagle flew off, revealing her nest high up near the summit.

"Making a long détour by means of a narrow slippery goat-track, we came out at the back, and then clambered along the top from one great boulder to another until we were immediately over the nest. Then craning our necks over the edge we could see below us a great flat nest in which was a large single egg."

The late Prince Rudolph of Austria, who had a wonderful eye for recognising birds, only saw it twice in Spain; once was when he was "riding along the fortifications on the slope of the Rock of Gibraltar. It flew low over us, and was a beautifully coloured old bird, with dark back and wings, and pure white underparts. I was told by the English officers that its nest was situated on a cliff that fell abruptly down to the sea, and that it had for years been protected from all pursuit.

"On reaching the highest point of the Rock I was shown the eyrie. It was on a projecting part of a very high cliff." He could see down into the nest. "It was made of branches, broom, and grass, and the two almost fully-fledged nestlings that it contained were hopping about lustily and clambering to the edge of it with outstretched wings." He was told that it was the only nest of this bird on the Rock.

There is an Eagle which belongs to India and Malaya which is called the BIRD-NESTING EAGLE, from its habit of hunting for, and feeding upon, young birds and

eggs. "Frequently," says Mr. Ogilvie-Grant, "it carries off nest and all in its talons, and examines the contents as it sails lazily away." A stuffed specimen of this Eagle may be seen in the South Kensington Museum.

Another specimen preserved at the Museum is the skin of an Eagle discovered only about a dozen years ago. This is the GREAT FOREST EAGLE of the Philippines, which Mr. John Whitehead made known in 1896.

He took up his quarters in the dense forest of the island of Samar, where many of the trees tower aloft to a height of between 200 and 250 feet. As the tops are so thick that even the fierce sunlight of the tropics cannot pierce for more than thirty or forty feet down into the waving masses of green leaves, all the animals that are able to live up in the treetops do so—the monkeys, for instance—while as for the birds, they dwell there as a matter of course. It was to the treetops, therefore, that Mr. Whitehead looked for a possible new discovery.

The natives had told him of the existence of a huge Eagle which preyed on the monkeys, so he watched day after day. At last he sighted the bird and its mate (only one pair was seen) and finally he shot the male bird. It fell, but gripped a branch and hung till a native climbed up to the dizzy network of boughs and brought it down. Mr. Whitehead calculated that it weighed about 18 lbs.!

Not only its weight but its length is surprising; its wings are rather short, but its tail very long. Its beak is much hooked, and "so compressed that the edges must cut like a double-bladed knife." The huge claws are "specially adapted for seizing and holding large animals with close thick fur"—monkeys, for example. But as there are, in

¹ A specimen of this formidable Eagle—the first of its kind ever brought alive to Europe—arrived at the London Zoo in the summer of 1909.

the Philippine Islands, several species of monkeys of exceptional size and strength, those claws and beak are weapons that have to be vigorously used, no doubt, not infrequently. And, as one writer suggestively says, "a battle between the Great Forest Eagles and the great forest apes must be one of the heroic events of life in the jungle."

The HARPY EAGLE of South America is very much akin to the Great Forest Eagle, and has an even greater strength of wrist and claws. Early in 1907 a good specimen was obtained for the Zoological Gardens, for the first time after twenty-five years, so my readers may already have seen this splendid bird. It does not appear to be common anywhere, but it may be met with in the forest regions from Paraguay and Bolivia right away up to Mexico. It measures rather over three feet; the plumage of the upper parts is blackish grey, with darker barmarkings, the crest is grey, and most of the under parts are white—altogether a striking-looking bird.

Low-lying forests not far from water are said to be its favourite home, and here it builds in some tall tree. To all but the formidable animals the Harpy Eagle must be a veritable terror. Here is a list of creatures attacked and partially eaten by this fierce bird of prey, as observed in Mexico: "Fawns, sloths, full-grown foxes and badgers, middle-sized pigs, and the black sapa-jou monkey whose weight exceeds that of the Harpy three times over."

The Harpy Eagle has been known to Europeans ever since the Spaniards became the conquerors of the New World. We learn from the Spanish historian, De Vega, that the Mexican and Aztec nobles often kept trained Harpy Eagles as falcons were kept in Old England, for use in hunting. One of them, which was valued at the price of



THE MARTIAL HAWK EAGLE.

ten slaves, was given by a Mexican Governor to Cortez, the redoubtable Spanish leader. This Eagle, says De Vega, inflicted on Cortez the only wound which he received during his daring expedition in that country. Cortez seems to have brutally struck the bird, injuring it mortally. "Before it resigned itself to death, it raised its head once more, and caught the first finger of the right hand of its cruel master, and bit it through, crushing it completely, so as not to leave the world unavenged."

When the bird is calm, the grey crest of feathers lies back on the head and neck: when angered, it stands erect, giving the bird a most determined and imposing look. Indeed, a Harpy Eagle standing on the body of its victim, with uplifted crest and blazing eyes, and with its tremendous claws driven deep into its prize, might well serve as a picture of "The Victor," so full of pride, dignity, and triumph does it then appear.

The BATELEUR EAGLE is an African bird. "With its fiery-red face and feet it is," says one writer, "one of the handsomest birds of prey." When courting, its strange gambollings and posturings are 'as good as a play' to watch—"a bewildering acrobatic display," one well-known naturalist calls this performance, "seeming to unite in itself all the arts of flight practised by all the other birds of prey."

Another South African is the MARTIAL HAWK EAGLE. He is not one of the larger members of the Eagle family, but he is, as his portrait shows, a very fine fellow.

Of the Sea Eagles it is good to know that Great Britain still gives a home to a few surviving pairs of that magnificent bird, the WHITE-TAILED EAGLE. But even these would soon disappear were it not for the

protection given to the species by certain landowners in Scotland.

Once upon a time the Erne, as it is often called, built and bred in many parts of England—Lundy Island, the Isle of Wight, and perhaps in Cornwall. Less than a century ago it was to be found in the Isle of Man, and in the Lake District until about the beginning of Queen Victoria's reign.

It was also common in the Lowlands of Scotland. But its true home, then as now, was on—

"The wild west coast of the north countree."

The storm-beaten ocean precipices that look westward over the Atlantic offer just the kind of harbourage it loves. Many of the Hebrides know its cry and the strong circling flight of its grand wings high in air; the still more northerly island groups of the Orkneys and Shetlands give even safer refuge.

The range of the White-tailed Eagle is very wide, however. Most of the countries of northern and central Europe have it as a resident, and many of the hot southern lands as a winter visitor.

Sometimes, instead of a sea-cliff, a tall tree is chosen for its nesting-place, but this is rarely if ever the case in the British Isles. The nest is a mere mass of sticks, but often piled high. The eggs are white and usually two in number.

Despite its strength and formidable look the White-tailed Eagle does not seem easily roused in defence of her home or her young. Most people would imagine, says Mr. Charles Dixon, that "to approach the nest of such a big bird would be a somewhat risky undertaking; but the sitting Eagle flies away almost as soon as it is disturbed,

and appears to show no further interest in the unwelcome visit."

It is odd, too, to see how this species of Eagle will tolerate the presence of small birds, even when intruding into its home. We have it on the authority of the late Prince Rudolph of Austria that colonies of tree-sparrows often take up their abode in the huge pile of sticks of which a Sea Eagle's nest is composed. "The cheeky little birds hop about without caring either for the young or the old Eagles, and quite friendly relations seem to exist between the mighty lords of the nest and the little intruders." Of course this applies only to the case of Sea-Eagles that build in trees.

That the Sea Eagle is daring enough when its anger is really roused is beyond doubt. The same author tells how, when he was shooting on the Danube marshes, he sent his keeper to pick up one of these birds which he had brought down with his gun.

Suddenly they both caught sight of another Sea Eagle circling high overhead. "As soon as this bird saw the keeper pick up its slain comrade it folded its wings and swooped down like an arrow. The keeper, whose attention was attracted by the noisy flapping of its heavy wings, looked up and saw the Eagle only a few feet above his head, with its claws ready extended for attack. The charge was so furious and the bird was so close, that the keeper, though a courageous man, was obliged to spring behind the trunk of a neighbouring beech tree." He adds, "I had often heard of such daring attacks being made by parent Eagles close to their nest, but this was in the wood."

Prince Rudolph reckoned the Sea Eagle the best known Eagle of his country (i.e. Austria), but it only stays there for part of the year, as a rule. Most of the Sea Eagles

build their nests on the shores of the northern seas—in Norway, Sweden, on the coasts of the North Sea and the Baltic, and in the great forests of Russia and Northern Germany. It has also several favourite resorts along the large rivers of Southern Russia near the Black Sea.

On the Continent, irate keepers on many of the estates take advantage of the Sea Eagle's great fondness for hares and rabbits, and lay out a poisoned rabbit on the bank of a river or lake frequented by these birds. Many are thus destroyed.

Sheep, fawns, and poultry are occasionally killed and eaten by this Eagle, but of course its diet is chiefly fish. It has sometimes been seen to carry a fish in each of its taloned feet, and drop one or both alive into the nest for its young ones to seize upon and eat.

But in captivity the Sea Eagle's tastes are apt to become, like Sam Weller's knowledge of London, "extensive and peculiar." I have read of one which was kept at Oxford, which did not hesitate to gobble up a hedgehog! What kind of throat it must have had to allow the passage of so prickly a mouthful we can only imagine. The same bird used to make frequent attempts at getting a meal off a tortoise!

North America has its Sea Eagle, a bold, bluff, piratical fellow, chiefly known for the way in which he robs the Osprey of its catch of fish. This is the Bald-head or WHITE-HEADED EAGLE, whose tail is also white, like his European cousin, and who is even more given to building in tall trees. He and his mate are very devoted parents, and have been known to perish rather than forsake their nest.

He is a greedy feaster when anything big falls in his way. One naturalist describes a Bald-head sitting stately and fierce on a dead horse, gorging himself on the carrion, and not permitting a waiting group of vultures to draw nearer till he had eaten his fill. Another was seen keeping to himself a heap of grey squirrels drowned by a flood and washed up on the banks: he would allow no other hungry bird or beast to share the food.

But of all the shabby tricks played by this Eagle, the worst is that which, being no great fisherman himself, he plays on that superb fish-catcher, the OSPREY.

The Osprey is half eagle, half hawk. It is, indeed, often called the Fish-Hawk. But it will be more convenient to speak of it in this chapter, especially as it is so closely associated (to its own great misfortune) with the Sea Eagles about which we have been talking.

It is not only the American Osprey that is so persecuted: in Europe it is just the same. "Sea Eagles and Kites are the most malicious tormentors of the poor Osprey," says one Continental writer, "for they worry it incessantly... and also rob it of its cleverly gained booty." It is a peaceable creature, and the more warlike birds of prey are no doubt encouraged to take advantage of its fishing expertness by knowing that their attacks will only be met with a few hoarse screams. Think of what would happen if any one of them tried to rob a Sea Eagle of his prey!

Yet any attempt by a human robber to meddle with an Osprey's nest is apt to have serious consequences. And it is even said by one observer, Webber, that where many Ospreys live near together, as in some places on the Gulf of Mexico, they will combine and beat off the attack of the fierce White-headed Eagle. "There was always a desperate battle first," he says, "before the savage monarch could be routed. I have seen them gathered about him

in such numbers, whirling and tumbling amidst a chaos of floating feathers through the air, that it was impossible for a time to distinguish which was the Eagle, until, having got enough of it amidst such fearful odds, he would fairly turn tail, and would dart hurriedly toward the shelter of the heavy forest to shake off his foes."

As befits so expert a fisher, the Osprey's talons are very strong; and the feet, which are a steely blue in colour, are rough and prickly on the under sides, enabling their owner to get a firmer grip of the wet, slippery, squirming fish.

Here is a good description by the writer above referred to: "The Osprey fishes just as readily in the sea as in fresh water, and suits its nest to the kind of neighbourhood it has come to. In treeless steppes it builds on the bare ground; and by the sea, in the steepest precipices, as well as on the lowest coral-reefs. In well-wooded countries it chooses tall thick trees, but, in the high mountains, the most inaccessible places in the rocks." The nest is very large and coarsely made.

It has been said that none of the Eagles are so widely and evenly spread over the world as the Osprey. It is known in Europe, Asia, North Africa, North America, and Australia; in Europe the great high-built nest may be found from Lapland to Portugal and from the North of Russia to the Caspian.

But it would seem as if Ospreys could be scared away from neighbourhoods where once they were common. "In Austria the Osprey occurs everywhere," the late Prince Rudolph reported, and the record of his expedition on the Danube, in 1878, abounds in allusions to this bird. Yet Mr. R. B. Lodge, in his recent book of travels in the Balkans, says that travelling over much of the same

ground he did not see a single one, nor did any of the people seem to know anything of this splendid bird.

In the British Isles, though very rare now, the Osprey seems to have been fairly common in days gone by. Half a century ago two nests were known to exist in Galloway, and a century ago there were Ospreys on Ullswater, one of the loveliest of our English lakes. And still, from year to year, we hear of pairs or single specimens being seen on quiet lakes even in the south of England—too often arriving only to be shot.

William Harrison, in *Holinshed's Chronicles*, tells us, among other quaint doings in the England of Queen Elizabeth, how the Fish-Hawk was made of use. He says: "We have also Osprays, which breed with us in parks and woods, whereby the keepers of the same do reap at such times no small commodity [make no little profit] for, so soon almost as the young are hatched, they tie them to the butt ends or ground ends of sundry trees, where the old ones, finding them, do never cease to bring fish unto them, which the keepers take and eat from them."

In the Highlands, says Mr. Charles Dixon, the nest nowadays is usually made on the broad, flat top of a pine tree, but formerly it was quite as often built on ruins or rocky islands. He describes his first sight of an Osprey, close to the head-waters of Loch Carron. "The bird was about thirty feet above the water, passing along, hovering every now and then with quivering wings, alternated with rapid beats, as is so often the way of our better-known Kestrel. We watched it poise for a moment and drop down, like a gannet, into the water, the noise as it struck the surface being heard distinctly from the shore. The bird rose again in a few seconds, and slowly retired to a

distant clump of trees, but whether it had caught a fish or not we could not decide."

And here is a companion picture which another writer gives of this noble bird fishing in an Austrian torrent: "It is beautiful to see the Osprey hovering like a hawk high above the water, and keeping in a fixed position, as if held by a chain, until it suddenly plunges into the foaming mountain-stream with such arrowy speed that the water closes over it. The next moment it flies off with a slim trout in its claws."

As Ospreys have a habit of appearing unexpectedly in places that suit their fancy, one here, another there,—young adventurers who have perhaps not long left the nest and are roving about before making a home of their own—some of my readers may have the rare good fortune to see one of these beautiful birds. Autumn is the most likely time, and the place will probably be either a woodland lake with tall trees to perch on, or a quiet stretch of seashore.

But, except in Scotland, there are few places in our island that are wild and lonely enough to give more than a day or two's hospitality even to a stray member of this world-wide scattered family.

THE BUSTARD.

E is a bird of the heaths and downs, of open spaces and wide horizons. Where the great rolling uplands heave themselves against the sky-line, rising clear of the copses and plantations that lie snugly in the hollows—where the winds have full sweep, and the furze and the hawthorns are twisted and "bitten," and the grass is short under foot, there is the home of the Bustard.

The home—but alas! the bird itself is there no longer, if we mean England. It belongs to the list of beautiful and curious creatures that man has done his best to scare away or exterminate. For some of these, it is true, there is no longer room in our crowded island, but scores of shy birds might make their home again in our waste lands, if we would only refrain from shooting at them or robbing their nests.

The Great Bustard is one of these. He was the largest of British birds, and to any landscape he would be an ornament. His length is from three to three and a half feet, and his weight is sometimes as much as thirty pounds. With head held well erect, he struts around with no little dignity, and when he lifts himself into the air he shows an expanse of wings no less than eight feet across.

His colouring is handsome, too. Head, grey; back, "chestnut buff, barred with black"; the wings white and black; breast, banded with chestnut and grey; the rest

of the under parts, white. Very noticeable is the curious tuft of long, white, thin feathers bristling out whisker-like on either side of his beak. The hen bird is far less handsome, and not so large.

Here is a little picture of a group of Bustards, seen through field-glasses, one day, by the authors of Wild Spain: "There are four or five and twenty of them, and how immense they look against the background of sprouting corn which covers the landscape; a stranger might well mistake them for deer or goats. Most of the birds are sitting turkey-fashion, their heads sunk among their feathers; others stand in drowsy yet half-suspicious attitudes, their broad backs resplendent with those mottled hues of true game-colour, and their lavender necks and well-poised heads contrasting with the snowy whiteness of their lower plumage."

At first thought, we are apt to wonder how so large a bird can possibly save itself from its enemies, especially man, in the open spaces in which it prefers to live. It must always be such a very conspicuous figure.

But there are two facts that we have to remember. One is that the open spaces it loves are measurable, not by square yards but by square miles (think of Salisbury Plain, by way of example; and even that expanse is nothing compared with the boundless Steppes of south-eastern Europe). And hence the bird, seeing danger approaching, can move freely away, keeping well out of range.

Another thing is that the Bustard has the short, strong toes and sturdy legs which make the Ostrich such a notable runner. And though it has not that desert bird's length of leg, it can do what the latter cannot do—it can launch itself into the air and fly to a considerable distance.

Hence, when pursued, the Bustard has two methods of saving itself to the Ostrich's one.

Moreover, the wariness of the Bustard almost amounts to a proverb. We often hear it said that rooks know the difference between a harmless stick pointed at them like a gun, and a real gun. But the rook shooter never has to use anything like the cunning devices which foreign sportsmen have to adopt, in order to get within range of this very alert bird.

One trick is to hide in a hay waggon, with a loophole to see and fire through, and to be slowly driven towards the spot where the flock of Bustards happens to be feeding. Or it may be that the hunter will put on the hat and blouse of a field labourer, pretend to be hoeing or digging, and gradually make his way nearer to the birds. Sometimes he will slouch along behind a drove of cows. Or he may get a pipe made out of the windpipe of an ox, crawl into the long grass, and imitate the call of the hen bird; it rarely takes much time to bring the mate bustling up to answer that call, if he happens to be within hearing.

English Bustards were shy and suspicious even in days when they were fairly common here. Gilbert White of Selborne closes one of his delightful letters with these words: "I remark that the golden-crested wren, the smallest British bird, will stand unconcerned till you come within three or four yards of it, while the Bustard, the largest British land-fowl, does not care to admit a person within so many furlongs."

From this author we learn that in his day (the *Natural History of Selborne* was published in 1789) there were Bustards on the Brighton downs. But Brighton was then but a little fishing village, and the green downs

behind it had not yet been invaded by holiday-makers and excursionists.

It was the same elsewhere in England. So long as the great heaths and moorlands were lonely and quiet the Bustards laid eggs and hatched out their little ones, and lived on year after year, generation after generation, in the same favourite places.

Newmarket Heath, in Cambridgeshire, was a famous haunt of this fine bird; another was Royston Heath on the Hertfordshire border. No better home also could there have been for it than the Wiltshire downs, before the manœuvring of troops and the echoing roar of artillery came to scare him. Likewise, too, the dry wolds of Yorkshire, the "brecks" and heaths of Norfolk, the uplands of Dorsetshire, and the Berkshire downs.

From all these places it has gone now. For the stray Bustards which are mentioned in the newspapers, from time to time, as being seen in this or that neighbourhood, are only visitors. And they, alas! are nearly always shot.

Here is an account of an impromptu Bustard hunt in the year 1751. It is in a book called *Anecdotes of Cranbourn Chace*, written by a clergyman. He says: "I was shooting dotterels near Winterslow Hut, when the report of my gun disturbed twenty-five Bustards, which flew away quietly over the hill called Southern Hill.

"I followed them on horseback, and came upon them nearly within shot. . . . As they rose, the noise of their wings frightened my horse, which I was leading; he started back, threw me down, and ran away. As soon as I got upon my knees, I fired at the birds, but they had got out



THE GREAT BUSTARD.

[W. S. Benridge, F.Z.S.

of range. . . . I believe such a number of Bustards will never again be seen in England together."

Yet in a *Dictionary of Natural History*, dated 1785, the compiler speaks of these birds being "frequently seen in flocks of more than fifty, on the extensive downs of Salisbury Plain, on Newmarket and Royston Heaths," and elsewhere.

But gradually the numbers grew less. Montagu, in 1813, was told by the Wiltshire shepherds that they had not seen any Bustards in their favourite haunts for two or three years past. In 1819, it was considered a noteworthy event when nineteen Bustards were seen together at Westcape, in Norfolk, and steps were taken by the landowner to protect them. About that time it was reckoned that there were only two "droves" in the county. The last nest made within the county borders seems to have been one that was found on a farm at Great Massingham, just before the beginning of Queen Victoria's reign. An egg taken from that nest is said to be still preserved as a curiosity. Two Bustards were killed a couple of years later in the same county, and these are supposed to have been the last English-bred specimens of this beautiful bird.

How was it, we ask, that the Bustard could not survive in England? Well, to begin with, its great size made it easy to espy. Then, its favourite haunts began to be less lonely, and, in some cases, to be enclosed and planted with trees. And where it laid its eggs in the corn-lands more careful farming led to the nests being discovered and destroyed.

Mr. Charles Dixon, the well-known writer on birds, gives it as his opinion that "if the Bustard had been carefully preserved during the nesting season, and only

killed in reasonable numbers, and its capture in traps made unlawful, the bird might have kept its place as a native species down to the present time."

Several attempts have been made by bird-loving English landowners to re-introduce the Bustard, by bringing over healthy birds from the Continent. As many as sixteen were obtained on one occasion, only about nine years ago. Their wing feathers were cut, to prevent them flying away "over park, over pale," and they were turned loose in a great wired-in tract of eight hundred acres on the Norfolk border. But the experiment does not seem to have been successful.

It is more cheerful to turn to other countries where the Great Bustard may still be seen, and is really plentiful.

To do so we need travel no further than Germany, as a writer in the *Spectator*, about a year ago, reminded us. He tells us how he had a day's stalking (without a gun) in Brandenburg, less than an hour's railway journey from Berlin. He found himself on a great, bleak, sandy plain, "mostly rough dry grass-land free from hedge or fence, divided by small ditches," in which coarse rushes and the brilliant yellow flowers of the marsh-marigold grew. A few low sandhills here and there broke the general flatness, and in the distance a group of ragged-looking trees—birches and Scotch firs—stood out against the sky-line.

Not a pretty country, you will say; and indeed, it cannot by any pretence be called so. Also it is cold and wind-swept. Even in April there are but few signs of green buds and new grass.

"The Spring comes slowly up this way."

But this is just the kind of country the Bustard loves. And it was not long before the visitor I have referred to, trundling across the plain in the low creaking hunting-cart,

with a green-coated Prussian gamekeeper as driver, sighted one of the birds he had come after.

The latter allowed the cart to come within a certain distance, then seeing the two men getting out and coming towards him, "the old bird walked proudly and without haste in the opposite direction. . . . Having walked perhaps a hundred yards, he took sudden flight and rose unexpectedly from the ground. His great stretch of wings, his neck extended in front, and the brightness of his white, grey, and chestnut feathers presented a very noble appearance, as he flew steadily and easily away, at a little above the level of the ground."

When he again settled it was among his fellows. They formed a group of about a dozen, but they had joined fellowship with a herd of roe-deer, and the birds and the deer were feeding together in the most friendly and sociable way.¹

It is worth while going after Bustard in spring, even if the sportsman goes without his gun. For to creep up unobserved within sight of a flock, when the male birds are "displaying"—a veritable performance in itself, and only noticed in pairing time—is to see one of the most remarkable sights in the bird-world.

The antics the male bird goes through are almost past belief. As some folks say, they are "just too funny for anything." His object seems to be to show the hen birds what a very fine fellow he is. First he tries to make himself look as big and important as he can. Next he seeks to rouse admiration by an exhibition of the

¹ In the early part of this chapter I have said something about the resemblance between the build of the Bustard and that of the ostrich. In the above fact we are again reminded of the ostrich, which is constantly seen in the company of four-footed friends, such as antelopes and zebras.

lovely white feathers that underlie the brown mottled ones.

Says one who has watched him, "the brown plumage seems to vanish, and only the white under-feathers are visible. The tail is laid forward over the bird's back, the wings are crossed, the head is drawn in, the breast is puffed out, and the feet beat the ground."

Those of my readers who have no chance of observing this extraordinary performance in the living bird, can see at the Natural History Museum, at South Kensington, an exceedingly clever representation of it; so skilfully has the stuffed specimen been set up and its plumes arranged.

One other curious thing about a Bustard in courting time is the neck-pouch which he has the power of filling with air. This, too, helps to make him feel important, when he is puffing himself out and ruffling up his plumage.

Among the homes of the Bustard in Europe are Germany and Spain. In many parts of Germany he is treated as a game-bird, and protected as carefully as the partridge in England. It is unlawful to shoot one between the first of April and the first of October. But in Spain he gets no such protection; he has to look after his own safety.

"These Spanish plains," says Mr. R. B. Lodge, "in spring-time, before the fierce sun has scorched and burned everything up, are ablaze with brightly-coloured flowers. Sometimes we waded knee-deep through acres of pink mallows, at other times thousands of blue irises made the prevailing colour blue, or patches of silver-grey thistles gave a peculiar grey bloom to the landscape." A beautiful home for any wild bird, you will think; though no doubt the Bustard would say, Give me food and liberty, and I shall be content.

Lord Lilford, one of our greatest authorities on birds, tells us that "in February flocks of Bustards, varying in number from eight or ten to sixty or more, are to be seen on all the pasture and corn-lands around Seville, especially on the right of the Guadalquivir, a few miles above that city, a country of rolling down-land, for the most part under cultivation."

Here in the young green wheat the Bustard lays her eggs, and brings up her two or three chicks. At first there is little or no shelter from the eyes of their enemies, but later on the tall yellow stalks hide the whole family most effectually.

For the corn-lands of Southern Spain are immense in their extent, and passing feet are few. So a Bustard's life in that sunny land must be rather a pleasant one, except when drought comes to lessen his food-supply. Here are some of the things he loves: grasshoppers and locusts, field-mice and lizards, earthworms, beetles, and snails, and, when he can find them, frogs. And for vegetable food he helps himself to the farmer's young corn, clover, and the leaves of vetches and other crops.

Eastward, on the great dreary steppes of Southern Russia, the Bustard finds a very different but equally welcome home. None but a hardy bird would venture to nest in the open, on those desolate plains, swept by the most bitter of winds. The four winter months do indeed see the greater number fly away to a warmer, kindlier land, but large flocks stay on, as if a Russian winter was to them not so very terrible a thing to face.

Those that stay usually keep together in companies, often of eighty or a hundred. But these are made up of many groups, and each group is as separate as are the regiments in an army. Indeed, the assembling seems to be

not because they are sociable, but because the places where food is abundant are then so few and so small.

These hardy steppe-dwellers are exposed to danger in a very unusual form. Their wing-feathers are liable to freeze. When the cold is very intense in these lands, the hoar-frost during the night is enough to cake on the wings and "glue" the feathers together, while they are crouching in the brushwood.

Sometimes the bird can preen them clear with his beak, but often he finds himself a captive fast bound. Layer after layer of frost forms on the feathers, and the prowling wolf and the cunning fox, finding him thus helpless, despatch him without trouble.

Man, also, has come to be aware of the trap that Jack Frost sets for the poor Bustard. He takes advantage of it, and preparations are made for a great Bustard-hunt. Here is an account that I came upon, years ago, in the St. James's Gazette:—

"Horses are carefully rough-shod; for the sport is pursued on horseback, and the ground is as smooth and slippery as a sheet of ice. Then in the morning, not too early, the party—four, five, or six strong—set forth. Each one goes armed with a whip having a stout handle, and a couple of lassoes; firearms are not needed.

"The most promising feeding-grounds in the neighbour-hood are of course known to the sportsmen, and they make for the cover nearest to these places. Now they beat the underwood and brush, hallooing and cracking their whips. The frightened birds rush out and try to make for the open. But the weight of their frozen wings presses them down; the feathers are covered with ice; they can neither rise nor run. They just waddle here and there in a helpless ungainly fashion.

"Crack! crack! go the whips; and the birds nearest the horsemen fall right and left, instantly killed by a dexterous blow on the head with the whip-stock. Out fly the lassoes, and more distant birds are struggling in the noose.

"Where four, five, or six persons take part in such a hunt, a few minutes suffice to despatch a fairly large number of Bustards. Then a move is made to fresh ground."

THE PARROTS.

HO tamed the first Parrot? And which member was it, of this family of five hundred species, that was first made a household pet?

Neither of these questions can ever be answered. For it all happened thousands of years ago, and in all likelihood the first captive Parrot was caged or tethered inside some poor native's hut, of whom the world knows nothing. But as far back as the fifth century before Christ there is a reference in the writings of a Greek historian to certain Indian birds which are unmistakably Parrots, or rather Parrakeets.

Creatures of such gorgeous colouring would soon find purchasers, if taken alive. And when one of the kinds which can be trained to talk became a prisoner it is not hard to see that such training would soon be attempted. If it were a rich man's house, some servant or slave boy would spend his leisure moments in getting the wiselooking bird to repeat after him some easily pronounced word or words.

But we know this, that since the day when that first captive imitated human speech the popularity of his clan has never failed. Other household pets might "have their day," be all the fashion, and then be neglected by all but the few; but generation after generation has seen the Parrot swinging and talking and whistling in his round cage, in country cottage and city lodging and spacious mansion.

Here in England the Parrot is almost invariably a cage-bird, though a perch and tray and a chain fastened round one leg are often substituted for the cage. But it should be remembered that attempts have been made to acclimatize this gorgeous stranger from sunnier lands. Strangely enough the coldness of our country during the winter months does not seem to have spoiled the experiment; none of the species seem to have minded the cold. The scheme was nearly always spoiled by other things—"high winds, destructive guns, hawks, and possibly starvation."

That was the report made by one who made the experiment and gave it a fair trial—the late Mr. Charles Buxton. At his country-house at Northrepps, in Norfolk, he used to fix up boxes in his trees to tempt them to make nests and bring up families. In five instances the nestlings were safely reared and fledged. It was, he says, a charming sight to see these beautiful plumaged creatures "flying about, always together, and living on the most loving terms."

But he had to confess that the experiment was "heart-breaking work." For they had a habit of straying away from their owner's woods, where they were safe, to distant plantations where the gamekeepers, full of surprise and curiosity, shot them and then—wondered where they had come from. Also any boisterous wind soon swept them before it, and park palings could not prevent this.

We read that pet birds would come home to him severely wounded. "On one occasion a flock of Parrots fled to a place named Brooke, full twenty five miles away, and eleven of them were shot by a keeper who naturally thought he had secured a wonderful prize. Afterwards five Cockatoos were shot together in the same

way." No wonder Mr. Buxton called his attempt "heart-breaking"!

But funny things happened sometimes, as well as sad ones. In one of the nest-boxes near the house a cat, finding it empty, established herself and brought up her kittens. "A pair of grey Parrots, who had not been industrious enough to lay eggs and have a family of their own, were seized with the idea that these kittens were their children! They kept up a constant warfare with the old cat, and whenever she left the box one of them used to get in and sit with the kittens! And they were constantly in close attendance even when the mother cat was at home."

Another funny bird was a large Parrot from the river Amazon. He was a wonderful talker, and had a trick of muttering to himself, "I have no wife, but I take care of my mother." He used also to make his owner laugh by walking up and down the window-sill imitating exactly the voices of the various servants who tried to coax or command him to come inside.

When strangers approached the house they were often astonished and perplexed to hear what they thought must be human beings holding a conversation in the tree-tops overhead. It was the Amazon Parrot. And on one occasion, this same bird "frightened a poor woman out of her wits by suddenly plumping down on the top of her head, as she was walking along the road."

Of course every reader of this book will recall the fright which poor Robinson Crusoe got, that hot afternoon when he had fallen asleep under the tree. We can all imagine how startling it must have been to the shipwrecked man who believed himself to be alone on the island, to be wakened by a voice calling him by name, and how relieved he must have felt when he saw that it was his truant Parrot who was sitting close by on the top of the hedge.

I have mentioned that Parrots have been proved to be quite able to stand the cold of an English winter. Indeed, the great scientist, Darwin, came across these birds even in so cheerless and inhospitable a region as Tierra del Fuego. But, for the most part, they must be regarded as belonging to the Tropics—to the sun-warmed forests which never see the falling snow.

It does not follow that because a bird lives in a hot country it will like cold water, in the way that an Anglo-Indian likes (and insists on having) his "cold tub." But Parrots are among the birds that do love both a shower-bath and a plunge. During a heavy tropical rain-storm, says Mr. John Lea, they may frequently be seen "sitting motionless at the very summit of a tree, on dead branches having no foliage, allowing the water to stream over them, and uttering cheerful screams of enjoyment."

"They often form great bathing parties," he adds, "and play about in the water until their plumage is soaked through. According to Levaillant, all the Parrots of the district meet together, and repair with much noise to the bathing-place, which may be situated a considerable distance away, for none but limpid water will satisfy them. [Parrots are very particular, as might be expected of birds so grandly dressed.] On their arrival, they are to be seen rolling and tumbling over one another in the utmost confusion on the banks, dipping their heads and wings, scattering drops of water in glistening showers all over their plumage, and thoroughly enjoying the frolic. When they have finished bathing they return to the dead trees which form their meeting-place, and finish their toilet by adjusting and preening their feathers."

Boys and girls who have charge of a caged Parrot should remember this love of water. Also, it must never be forgotten, that though these birds do not drink very freely, it is sheer cruelty to give them nothing to drink. Juicy food is not enough; the water-tin should be filled up daily with clean water.

Their habit of twisting and turning about, swinging from their perch, hanging head downwards, turning somersaults, and the like, was once thought to be simply a restless trick to pass the time—something learned in captivity only. But travellers who have studied bird-life in such places as the forests of Central and South America, tell us that the wild Parrots may be seen going through just the same exercises, in their leafy solitudes.

The members of the Parrot family differ not only in shape and colour and in habits, but also in diet. The greater number are fruit and seed-eaters; they love such fare as the pulp of bananas and lemons, also almonds, ripe walnuts, fir-cones, and certain berries. But others are honey-eaters, and at least one, the hook-billed Kea of New Zealand, is a flesh-eater.

Now, before passing on to speak of the Cockatoos and the Parrakeets, let me say a few words about two or three Parrots in particular.

The GREY PARROT is one of the best known. With his ashen grey dress and deep red tail he is a sufficiently handsome fellow, but he is valued chiefly for his talking powers. He is a native of Africa, and large numbers of his species are brought by sailors and by traders to Europe.

Innumerable stories are told of his cleverness, his memory, and his quickness of observation. He is a Parrot with a brain, and some of the quite sensible sentences, which he will repeat in the most natural voice, sound

quite uncanny coming from a bird, even a bird so wise-looking as he.

He comes of a long-lived race. François Levaillant, the eighteenth-century traveller, mentions one which he knew had lived thirty-two years in the house of a Dutchman named Huyser, at Amsterdam, and had spent forty-one years previously in the home of this man's uncle. At the age of sixty its wonderful memory began to fail. At sixty-five its moulting ceased to be a regular yearly event, and when Levaillant saw the poor bird it looked very forlorn and infirm, as well it might at such a venerable age. It had lost its memory and it was nearly blind; and its owners treated it as an invalid, giving it, from time to time, biscuits soaked in wine.

Sometimes a Grey Parrot will wear a tattered and "threadbare" look while still far from old age. For certain unwise forms of diet will bring on an uncomfortable restlessness which makes the bird peck out its own feathers. Mr. J. G. Wood knew of one which must have looked amazingly funny, for, having pecked out every feather that it could reach with its beak, it presented the unusual sight of a full-plumaged head and a body as bare as that of a plucked fowl!

The OWL PARROT belongs to New Zealand, where the Maoris call him *Kakapo*. He is about the size of a raven, with a dark-green coat mottled with black, with some yellow markings, and a rather flat face, from which a curved owl-like beak stands out rather prominently. Like the owl, too, he wakes up after sunset and "lies low" during the hours of daylight. Hence he is often called the Night Parrot.

He is so weak on the wing that he may be said to be a non-flying bird. He can mount up into trees, but greatly prefers the ground, along which he makes tracks to and from his nest, closely resembling paths worn by human feet.

His coat seems made to match the thick moss which grows on the moist New Zealand hills. And if suddenly surprised, instead of rising and whirring off, partridge-like, "he will just pretend he is only a bunch of moss, and will roll over the edge of the rock or tussock where he happens to be sitting, and squat in the moss below, till the danger has passed."

But neither this cute trick, nor his nocturnal habits, seem to be saving him from approaching extinction. Once he was common all over the colony, now he is only found in the North Island and the northern part of the South Island. Dogs, cats, and pigs make war upon him, and the natives often organize hunts by torchlight, sending their dogs to attack him, and pull him out of his hole. Such unequal contests are soon decided, but the Owl Parrot's sharp beak can give very serious wounds, and the dogs do not have it all their own way.

His food is chiefly tender twigs and leaves, mosses, roots, ferns, berries, and seeds, with an occasional lizard on which he may be heard feasting with grunts of satisfaction. He is said to graze, nibbling the grass much as a rabbit does. He must be sought for in forest glades, or on open hillsides where there are plenty of stones among which he can hide.

The late Sir George Grey, when he was Governor of New Zealand, noticed with interest that when this bird happened to be disturbed either by accident or by native hunters, during its day-time sleep, it usually tried to cover itself up again—just like the sluggard in Watts's poem—

[&]quot;You have waked me too soon, I must slumber again."

A year or two ago one of these Parrots was sent across the sea to the Zoological Gardens, London, where there had not been an Owl Parrot for over thirty years. It was not long before the new arrival began to act as above described. It was kept in a box half full of straw. When it was taken out by the keeper for some visitor to see, it lost no time in bolting back to its box the moment it was released, and "pulled the clothes over its head."

The HAWK-HEADED PARROT comes from the forest regions of Central and South America. You will find his gaily-dressed tribe in such places as Honduras and the glorious land of Brazil, through which one of the mightiest of rivers, the Amazon, winds slowly to the Atlantic Ocean.

He almost needs the sunshine of his native land to bring out the wonderful colours of his plumage with all their sheen and glitter. For, as a friend of mine has said, "the light emerald green of his wings and back turns in shadow to rich bronze and copper; while the brilliant crimson of his breast and the back of his crested head changes to deep purple." The head of the male bird is white, that of his mate is grey.

"If anything angers or frightens them, they raise their wonderful ruffs and puff themselves out in a fury of beautiful shaking plumes, while their orange eyes blaze defiance." For all that, they make very gentle and docile pets.

Only one more of this branch of the great Parrot family I have space to describe here, and that is the KEA.

The Kea is a New Zealand bird who seems to have been an inoffensive Parrot enough, until the settlers came and their vast flocks of sheep began to take possession of the great lonely grass-lands. Then he became a flesh-eater—and a nuisance.

A colonist, who owned a very large sheep-farm, told a writer in an English newspaper that he had noticed what in all likelihood started the new taste and new habit in the Kea. "The fresh skins of dead sheep used to be hung up or pegged out with bits of fat still adhering to them. The Keas used to visit these and eat the fat." Ever after they would of course think of this new delicacy as connected with sheep's wool; and, singling out those sheep in a flock which seemed least able to resist, they made a practice of alighting on the poor animal's back, and digging through the wool into the fatty part of its body, till such injury was done that it fell dead.

Recent writers declare that the damage so inflicted has been greatly exaggerated. But the long, cruel-looking beak of the Kea seems to fit in with such a charge; and certain it is that, for some time past, the sheep-farmers have vigorously declared war on this bird as an enemy of their flocks.

The MACAWS are a positively gorgeous family. Nature seems to have chosen the very brightest and richest colours from her magic store when she gave them their dresses. What with their brilliant colouring, their long tails and hooked beaks, their powerful flight, and their harsh loud voices, they are not a family that can be overlooked or disregarded.

So a word or two must be said about them here, before we pass on to speak about the Parrakeets and the Cockatoos.

The home of the Macaws is South America. Waterton, the English traveller, who roamed so far and saw so much in the wild forest regions of Demerara,

Guiana, and adjacent countries, wrote about these birds in glowing words:—

"Superior in size and beauty to every Parrot in South America, he [the Macaw] forces you to take your eyes from all else and gaze at him. His commanding strength, the flaming scarlet of his body, the lovely variety of red, yellow, blue, and green in his wings, the extraordinary length of his scarlet and blue tail, seem all to join and demand for him the title of emperor of all the Parrots.

"When the coucourite trees have ripe fruit on them, they are covered with this magnificent Parrot. He is not shy or wary; you may take your blow-pipe and quiver of poisoned arrows, and kill more than you are able to carry back to your hut. They are very vociferous, and, like the common Parrots, rise up in bodies [flocks] towards sunset, and fly two and two to their place of rest."

Waterton is speaking here of the Red and Blue Macaw; but he mentions also the Blue and Yellow Macaw, whose noisy cries help to make the Parrot quarter at the Zoo a veritable babel at times.

In that delightful book Across a Continent in a Man-of-War" (1909), which records how H.M.S. Pelorus steamed two thousand miles up the river Amazon, the author, who was a petty officer on board, tells of the entrancing sights seen by the crew on her strange and novel voyage. Right through the country of the Macaws the ship came gliding. "About two or three hours after starting," says Mr. Highams, "we began to witness some magnificent scenery, the banks being lined on either side with lovely tropical trees and plants. . . . At one time we were in mid-stream, and the next so close to the banks that birds of all descriptions and plumage could be seen, and the

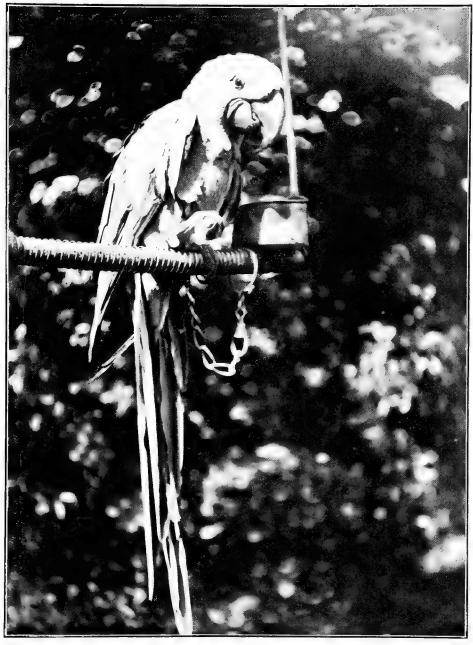
chattering of the parrots plainly heard." What a panorama of beauty it must have been! And the birds, unstartled by any footfall, must have been taken unawares as the cruiser stole silently past their playgrounds. What would not some of us have given to have been on board and seen all those riverside wonders?

The Great Green Macaw—who, by the bye, is not all green, for he has scarlet and blue to make him still more gay—often strays away from his forest haunts and helps himself to a change of food among the maize fields. The farmer hates him, and shoots him—when he can; for his appetite is enormous, and the mischief he can do in a few hours is very serious.

Like the baboons, he is cute enough to station one of his clan as sentinel, when he and his fellows are going to raid the cultivated lands. As soon as the alarm is given they rise and with strong wing-beats take flight back to the forest.

The author of *The Naturalist on the Amazons*, Henry W. Bates, saw few living things, in the course of his adventurous wanderings, that were more rarely beautiful than the Hyacinthine Macaw. It is only to be found in the wilds of Brazil, far away in the interior.

It is three feet long from the beak to the tip of the tail, and is entirely, he tells us, "of a soft hyacinthine blue colour," except just round the eyes, which are encircled with a bare white patch. The biting power of the beak must be astonishing. For this Macaw feeds on the hard nuts of certain palms, notably those of the Mucujâ, which are "difficult to break even with a hammer." These digestible trifles, he tells us, are "crushed to a pulp" by the powerful mandibles of the Araruna, as it is called by the natives of those parts.



Photograph by]

THE HYACINTHINE MACAW.

[W. S. Berridge, F Z.S.

Possibly, however, the Macaw deals with the nut in the way that Mr. Wallace tells us the Black Cockatoo manages to split open the hard canary-nut—by a mixture of biting, sawing, and crushing.

The PARRAKEETS are quite an important branch of the Parrot tribe. They are the dwarfs of the family, but some of them are as vivid in their colouring as any of their big relations.

Best known of all, perhaps, to the readers of this book is the lovely little Grass Parrakeet, so often sold in pairs in this country under the name of Love-birds. They belong to Australia, where they are to be found on the grass-lands, at a distance from the coast. Mr. Gould, the naturalist, speaking of his travels in New South Wales, says, "I saw them in flocks of many hundreds, feeding upon the grass seeds that are there abundant. So numerous were they, that I determined to encamp upon the spot in order to observe their habits. . . . The nature of their food and the intense heat of the plains compel them frequently to seek the water. Hence my camp, which was pitched near some small fords, was constantly surrounded by large numbers, arriving in flocks varying from twenty to a hundred or more."

They fly straight, and swiftly. And when they migrate from one district to another, as annually they do, the concourse is quite an impressive one.

They are very common in the neighbourhood of Adelaide, where they perch on the gum trees but feed on the ground.

Two other species are the Red-shouldered Parrakeet and the Broad-tailed Parrakeet, both of which are natives of South Australia.

The COCKATOOS belong to the vast island-continent

of Australia, and that long stretch of land which reaches down from Asia into the island-studded seas, and which we call the Malay Peninsula.

Two of them are very familiar to English eyes—the handsome white bird with the yellow head-dress, known as the Sulphur-crested Cockatoo, and the Great White Cockatoo whose plumage has a slight rosy tinge in places, while the crest is pure white.

It is good to know that the former at least is not in danger of being counted among the birds that have lived. As recently as 1907 I read a letter written to the Field newspaper by one who knew the bird well, and he reported that the species showed little or no signs of decreasing in numbers. "Not long ago," he says, "I saw a trailing flock of Cockatoos, about half a mile long and containing some thousands of these birds, pass over my house in the western district of Victoria." Indeed, he reports that, in some wheat-growing districts, they are so numerous as to be a veritable plague to the farmers.

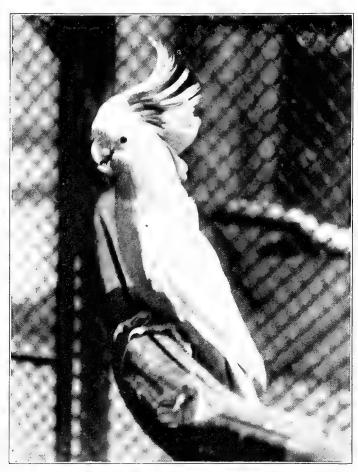
They build in holes in trees, preparing the nest far down enough for it to be out of reach of any nest-robber's arm, and choosing a hole high up enough to be not easily reached by a climber. The lofty trunks of the eucalyptus trees which abound in Victoria are favourites, as they give just the conditions that are wanted; for many of them are branchless until about thirty or forty feet from the ground. Even the dead ones are not despised, for they are often full of hollow places.

To reach a Cockatoo's nest various means are used. One is to throw up a rope till it falls over the lowest bough, and then for the hunter to be hauled up by his companion, by means of a noose. Another plan is that of driving nails into the trunk, the climber using them as

steps, and driving in fresh ones as he ascends. Both methods need care, but both have been used with success.

If the hunter is also a naturalist, and wishes to watch

the young Cockatoos being fed, great wariness must be exercised lest the parent bird or birds should know of his presence. The instant he is detected the mother will fly off swiftly and noiselessly, and the watcher will have t.o. m o v e away new ground knowing that he has postponed the young



LEADBEATER'S COCKATOO.

Phetograp' (-by)

[W. S. Berridge, F.Z.S

birds' breakfast or supper (feeding-time is early morning and after sundown)—for the meal is not resumed till the intruder has taken himself off.

The little Cockatoo, when first he shuffles along to the mouth of the hole where he was born, must feel very much like a little boy or girl who has been born in a lighthouse, and has never yet gone ashore. When he looks over the edge he sees such a fearful drop beneath him that he shrinks back in dismay, and wonders how ever he will get away when the time comes to make the venture.

So, naturalists tell us, the young Cockatoos take plenty of time in growing up. "I have known eggs to be in the nest early in August," says one, "and then have seen the young birds still in the nest in December." They wait until their wing feathers are fully grown, and even then they will sit on the edge of the hole where they have lived so long, very disinclined to launch themselves into the air. The parent birds do their best to tempt and encourage them to fly. And at last one spreads his wings and flutters off, to perch on a neighbouring tree.

"About the end of November," says the Australian writer whom I have quoted above, "the young ones are nearly all flying, and all over the Cockatoo country you can see little groups of three and four birds, parents and young, perched on the leafy top of a tall eucalyptus, or feeding on the seeds of dry wild grass, or rooting up the wild geranium."

By January the last cowardly little nestling has plucked up courage to leave the sheltering hole in the tree, and by the end of the month the whole tribe begins to gather into flocks according to its custom. "Then you will see huge flocks of snow-white Cockatoos circling overhead, and you will hear them also, for their screams are deafening. One of the prettiest sights is a flight of

Cockatoos alighting on a newly-ploughed field. So elegant and orderly are their movements before they alight that even the farmer whose seed oats they are after cannot help admiring them."

Cockatoos make admirable pets. They have tempers of their own, but they have also a great deal of affection, if it can be called out. And their cleverness is often almost past belief.

The late Mr. Charles Buxton had one which he wanted to keep chained to a perch. "But though a first-rate London locksmith tried everything his ingenuity could suggest, the Cockatoo beat him utterly. Without breaking it he contrived to open the ring or other contrivance for holding him, with his beak, though one or two of them must, one would have thought, have needed great study to understand."

Like the Grey Parrot the Cockatoo is often a famous talker. Many are the stories told of this wonderful power of his. Here are one or two which will be new to you. The narrator of the story heard one of these birds saying to himself, "One, two, three, four, five, six, eight—bother it, I've forgotten the seven again." It was said in the most droll way, and followed by a hearty laugh which was positively human.

One of Mr. Buxton's Cockatoos, who had lived near a farm and had been petted and taught a good deal, was being conveyed by train to Northrepps, where Mr. Buxton had a house, when he suddenly electrified his fellow-passengers by an exact imitation of the screams of a dying pig! It was one of the farm-yard noises which had evidently much impressed him. With such a clever mimic, to remember was to imitate—which he took care to do, at the earliest opportunity.

The strength of a Cockatoo's beak seems to equal the cleverness of its brain—and the two often work together. "They are, perhaps without exception," says Mr. Lea, "the most destructive of birds. They will gnaw through planks two inches thick, and even through a thin sheet of iron. Linden kept some Cockatoos which persisted in turning over the food-trough in their cage. He fastened it to the bars with wire, he screwed it down, and tried all sorts of means to secure it, but the birds knew perfectly well how to unscrew it, and were never satisfied until they had got it loose again." Sooner or later they always succeeded.

The temper of the Cockatoo is easily roused. The sight of anything or anybody whom it specially dislikes is enough to turn the dignified white bird into a screaming fury.

On one occasion, at least, this very unlovely trait was turned to good account. The incident illustrating this occurred a good many years ago.

An English ship voyaging in the Pacific had touched at a certain island, and the natives had come off in their canoes and crowded on board. They were armed and evidently bent on theft, if not violence, and the captain was at his wits' end to know how to get rid of them. The ship and her crew were at their mercy, should an occasion of quarrel arise.

Suddenly a shrill scream was heard. A pet Cockatoo, belonging to the ship, had been hustled by one of the sailors in passing, and was in a royal rage. With crest erect and blazing eyes it uttered scream upon scream. Then it began to talk—just like the mate when he was scolding, the words coming thick and fast.

The savages stared in amazement. Soon their super-

stitious fears got the better of their greed of plunder. With a yell they tumbled over the ship's side into their canoes, and paddled back to the shore. Meeting other boats coming out, they warned them not to proceed, for on board the white trader's ship was a fearsome witch-bird which had the ghost of a man inside it!

THE STORK.

A WHOLE world of fairy tales and nursery lore clusters round the great White Stork. Belonging partly to our common earth, and partly to the realm of make-believe, he is a sort of delightful go-between connecting the two. He has the wise, grave look of one who has travelled far and learned much. If only he could speak, we feel sure that he could relate wonderful things.

In certain lands he is treated with the greatest respect. His yearly coming is watched for and welcomed. If he chooses this or that man's house-roof to build his nest upon, great is that man's satisfaction.

All the children of those countries—German, Danish, Dutch—love the White Stork. He fills quite an important place in their life. He is mixed up with their earliest fancies. He figures largely in their favourite stories.

For the story-tellers have always been fond of the Stork—from Æsop, who lived six hundred years before the Christian era, down to Hans Andersen, who died less than five and thirty years ago. Most of my readers will remember Andersen's description of the Stork family on the roof, and the way the mother bird bids her children never mind the taunts of the rude boys in the street below, for soon all the Stork families would be far away in a beautiful land, while the jeering boys would be shivering with the cold of the Northern winter:

"Listen to me," she says, "and not to them. All the



THE WHITE STORK.

Storks in the country will assemble for the autumn manœuvres. It will be needful then to show that you can fly well, for whoever cannot fly strongly and well will be thrust through and killed by the general's beak.

"After the great review we shall fly away to the warm countries, far far away beyond the mountains and the great forests. We shall go to Egypt, where there are three covered houses of stone which taper to a point and tower up ever so high. They are called Pyramids, and they are older than a Stork can imagine.

"There is a river, too, in that country which overflows its banks, and all the land is turned into mud. Then you walk about in the mud and eat frogs (Oh-h! cried the young Storks with delight). Yes, it is splendid there. You do nothing all day long but eat. And while we are so happy over there, here not a green leaf remains on the trees, and it is so cold that the clouds freeze to pieces and drop down in little white rags," by which, of course, she meant the falling snow.

Many children must have gained their first knowledge of Storks and their ways from that charming story. But those who live in the old towns of Holland and Germany and Denmark, where the return of the Stork means the return of spring, know the tall white bird by sight long before they can read about him.

Usually he is to be seen high up on the roof or chimney stack where his nest is built—a pile of sticks and twigs with some soft lining—or stalking sedately about the market-place looking for scraps and refuse. The fish-market is his "happy hunting-ground." He is not too particular, however, and no doubt the reason why he was welcomed in olden days was because he made such a good scavenger.

But one writer mentions the case of a tame Stork which he himself saw joining in a game of "Touch," which some children in a garden were playing. It entered into the spirit of the game, and (so he says) chased the others when it was touched, and having nipped hold of their clothing with its beak ran off in its turn.

For the most part, the Stork can hardly be called a playful bird. He is too dignified. You would not exactly like to take liberties with him. In fact, there are occasions when he can be very serious and purposeful indeed.

For example, here is an anecdote from an old Natural History: "A farmer in the neighbourhood of Hamburg brought into his poultry-yard a wild Stork to be the companion of a tame one which he had long kept there. But the latter, disliking what he took to be a rival, beat the wild one so cruelly that he was compelled to take wing, and with some difficulty escaped. A few months later, however, the ill-used bird returned to the poultry-yard, attended by three other Storks, when they all fell upon the tame Stork and killed him."

But we associate pleasanter things than revenge with the Stork. He is a bird with a good reputation, and though some of the oft-told stories of his affectionate care for his old parents seem to be exaggerations, he has kept up that reputation for many hundreds of years.

Certainly he and his mate are devoted to their helpless nestlings, and will literally "go through fire and water" to save them from peril.

It is said that during the battle of Friedland, in the year 1807, when the Prussians and their allies were beaten so disastrously by Napoleon, a farm near the city was set



"ONCE MORE SHE CAME DOWN."
AN INCIDENT DURING THE BATTLE OF FRIETLAND.

[Drawn by Colbron Pearse.

on fire by a bursting shell. Near the farm stood an old dry tree, on which a pair of Storks had built. The mother bird was on the nest at the time. The noise of the guns scared her, but they could not scare her from her precious charge.

But presently, fanned by the wind, a sheet of flame from the burning buildings swept round the tree. Then she sprang up and soared high in air. But she would not leave the nest. Down she swooped through the smoke, wondering how she might save her offspring. The heat again drove her away, and again she soared into the sky. But her mother-love was greater than her fear: and it drew her back. Once more she came down, and this time the smoke and flames overpowered her, and she fell on to the already crackling heap of sticks, blinded, scorched and dead.

Such stories are not rare. No wonder, then, that the people of the towns which are visited by Storks, in their migrations, respect them and treat them hospitably.

Some put boxes on the roof to tempt them to build there. Better still, in the Stork's own opinion, is the old device of fixing a cart-wheel on the top of a stout pole, and rearing it on some high place, properly supported and made fast. The wheel makes a capital platform, on which the great collection of twigs and sticks can be built up. Every spring sees the pile grow higher.

Not only in the north of Europe, but also in the southeast, the Stork is well treated. I do not know whether there was ever any truth in the old belief that in Mahometan countries this bird always preferred to build on a Moslem housetop, avoiding that of a Christian. But we are told that when after long years of Turkish misrule the Greeks gained their independence, they destroyed numbers of

Storks' nests throughout the country, because, said they, "the Stork is a Turkish bird." 1

It is good to hear that the old respect for the Stork still prevails in so many countries where Moslems and Christians live side by side, as in the Balkan States.

Says the writer of a book published in 1908, a travelling sportsman and naturalist: "It is a most difficult thing to take Storks' eggs. They are exceedingly common, and I have seen hundreds of their nests in Holland, Denmark, Spain, Hungary, Roumania, Albania, and Montenegro. But as they are almost invariably on or near houses, the owners of which regard them with much affection or superstitious regard, it is nearly always impossible to get at the eggs.

"In Spain, it is true, I do not think the people pay much regard to them, merely considering them useful in eating locusts, mice, and even rats and snakes. But in Holland and Denmark it would be unsafe to disturb them, and even more dangerous in Mahometan countries, where the people look upon them with peculiar reverence."

What a happy contrast is this to the wanton shooting of every rare bird, the practice which seems usual in this country! No wonder the White Stork never comes in his thousands to England. Now and again a straggler from the great migrating armies arrives on our shores, but only a day or two seems to elapse before he is seen and "bagged."

A kindlier reception awaits him in North Africa. In Morocco, we are told by Colonel Irby, "almost every Moorish hovel has its Stork's nest on the top, a pile of

¹ That old dislike must have died out long ago. Indeed, my first sight of a Stork, other than in a Zoo enclosure, happened to be in one of the streets of Athens, the Greek capital, where it was walking about as if the whole place belonged to it.

sticks lined with grass and palmetto-fibre. . . . In Fez and other large towns, indeed, there is a regular Storks' hospital. Should one be injured in any way or fall from the nest, it is sent to this institution, or rather enclosure, which is kept up by subscriptions from wealthy Moors, who regard the Stork as a sacred bird."

And a writer of last century says that in Bagdad—no longer the splendid city that it was

"in the golden prime Of good Haroun Alraschid,"

the towers of the mosques, being flat, have been taken possession of, coolly enough, by these privileged birds. Each nest, being of the same width as the tower, seems part of the structure, as you look up at it. But the mother Stork with her long beak projecting over the edge, as she broods on her nest, makes a crowning ornament which is rather odd in its effect.

Canon Tristram mentions one grim sight that met his eye on visiting Rabbath-Ammon, in south-east Palestine. On the top of a great pile of ruins was an old Stork's nest, fast falling to pieces. And from it, or near it, head downwards, hung the skeleton of one of the Storks. The poor creature had caught its leg in a crevice of the masonry. The leg had got broken and the bird had been unable to get free.

Thus caught it had fluttered and struggled, to the dismay of all its fellow-Storks, until death put an end to its sufferings. There its body had hung, dangling and swaying in the wind, while every Stork in the near neighbourhood fled away from the unlucky spot.

Bible lands, as we call them, see a great deal of the Stork, and Canon Tristram rightly calls attention to the truthfulness of the description in the Book of the Prophet Jeremiah, where we read, "The Stork in the heaven knoweth her appointed times." That phrase, "in the heaven," he points out, is peculiarly one that fits the Stork.

For not only does the Stork migrate from one country to another at "her appointed time," going northward in the spring and southward on the eve of winter, but, "unlike most other emigrants, the Stork travels by day at a great height in the air, and the vast flocks cannot but attract notice."

"The multitudes which arrive," he adds, "and the suddenness with which these great birds distribute themselves over the whole face of the land, is, in Palestine, truly startling. In winter not one is to be seen. On the 24th of March vast flocks suddenly appeared, steadily travelling northward, and leaving large detachments on every plain and hill."

These, he says, did not keep together like rooks, but spread themselves out as a search-party would do. And, indeed, their business was searching—searching for food. They did not get in one another's way, but each for himself and by himself ransacked the fields and pools and marshes.

There they stayed until, one would imagine, every unfortunate frog and hapless snake that had not learned to keep in hiding had been gobbled up. Then the white-winged invaders moved northward, "leaving behind them only a pair here and there at the established nesting-places."

It is good to know that later travellers have given as good a report of the largeness of these Stork armies as Canon Tristram gave in 1864.

He tells us that "on Mount Nebo they so covered the range that, until we had examined them through our telescopes, we took them for vast flocks of Moabite sheep, pasturing."

Travelling in the same country, in 1881, Prince Rudolph of Austria writes: "Storks were standing on the hillsides in perfectly incredible numbers." In no region have I ever seen such masses of these birds as were assembled throughout the whole valley of the Jordan, especially in the valley of El-Audje." And a little earlier he says, "We rode along the edge of the vegetation at the base of the mountains through thick bushes and low trees, which were literally covered with Storks just awakening from their slumbers."

The flying powers of the Stork, like those of the wild pelican, are surprisingly great. They fly very high and they fly strongly. One who has watched them says, "The black wings suddenly expanded from the white body have a most striking effect, having a spread of nearly seven feet; and the bird on the wing, showing its long bright-red bill, and steering itself by its long red legs, stretched out far beyond its tail, is a noble sight."

When flying you may easily distinguish a Stork from a heron, even if it be too high to tell the colour of the bird. For the Stork flies with its neck straightened out; the heron, with its head drawn back between the shoulders.

Although the Stork has no voice, it has a trick—especially during its courting days and whenever it is very excited—of keeping up a great clattering with its beak, snapping the upper and lower mandibles together. You would hardly think that was a sound that could be heard far away, yet one writer on birds, Mr. John Lea, says that in Morocco, in spring-time, he has listened to the clatter of Storks passing overhead, when the great flock was so high up that not a bird could be seen!

¹ The author of *On Safari* (1908) saw the White Storks "covering the plains" in East Africa, "in a black and white crowd." They render excellent service there in devouring locusts.

Baby Storks are queer puffy uncouth little beings, with long necks and large beaks. There are usually three or four of them in the nest, and very helpless babies they are for quite a long while after they are hatched out.

When the time comes for them to learn to fly they take rather long about it. Perhaps this is as well, for their nursery is usually in a very high place and a fall might mean being killed instantly. Here is a good description of their first attempts: "They begin by moving round the nest flapping their wings; then they take a little jump and learn to support themselves for a moment in the air, rising higher each time, but taking care always to keep over the nest until they are able to remain in the air for half a minute or so." Then, grown bolder and more confident, they make short trial trips round the chimney-stack or all round the roof; and so the journeys lengthen, till they are able to fly whither they will.

Of the love and devotion of the parent birds to their fluffy nestlings I have already given an example. Here is another which is even more charming. I have had it for many years, and have not seen it reprinted in any book. It is from a Swiss newspaper, the *Nachrichten* of Basle, but it concerns a Stork family in a German village—the village of Lowenberg.

During a great storm the lightning struck a barn, on the roof of which the nest was built. Flames began to dart out from the woodwork, and the parent birds, watching from a little distance, were in much distress.

Presently the mother flew to the nest, seized one of her babies in her beak and bore it away to a safe spot in a neighbouring meadow. The father mounted guard over the poor little scared creature, while the mother went back for another of her babies. Only one remained, and while she was flying round and round through the smoke, wondering how to reach it without getting crippled by those leaping tongues of flame, the nest broke up and the nestling fell through into the burning barn.

Then her mother-love overcame her fear; she plunged down into the heat and smoke, got hold of her baby, and brought it up in safety. She flew off, and the fire burned itself out.

Next day, a wounded Stork fell to the ground, in the market-place of Trebbin, a little town near by. She was badly scorched about the legs, and the policeman who found her carried her kindly into the guard-house. Here a doctor was called in to examine her injuries, and the burgomaster arranged for her to be comfortably lodged and looked after.

She proved to be the intrepid mother Stork of Lowenberg, and every one having heard the story of her heroic act, wanted to show her kindness. The school children spent their leisure time in hunting up food for her, and many a fat frog was brought to her room. The burgo-master himself came every day, to see that his town's new guest was being properly cared for.

Meanwhile, the father Stork found out where she was, and came flying over daily to see her; the rest of the day he was busy getting food for the two little homeless nestlings. In a fortnight her legs were so much better that she was allowed to go free, and away she flew to join her family.

And now just a few words about the other members of the clan, and I must bring this chapter to a close.

First there is the BLACK STORK. He is a most handsome bird, with his glossy purple and green back and wings, and his snowy white breast, and red beak and legs.

But he is neither so well known nor so popular as the White Stork. He does not seek the haunts of men nor build on friendly house roofs. When he wants to make a home he chooses some tall forest tree, far away from street traffic and human voices.

So there are no pleasant nursery stories clustering round the name of the beautiful Black Stork.

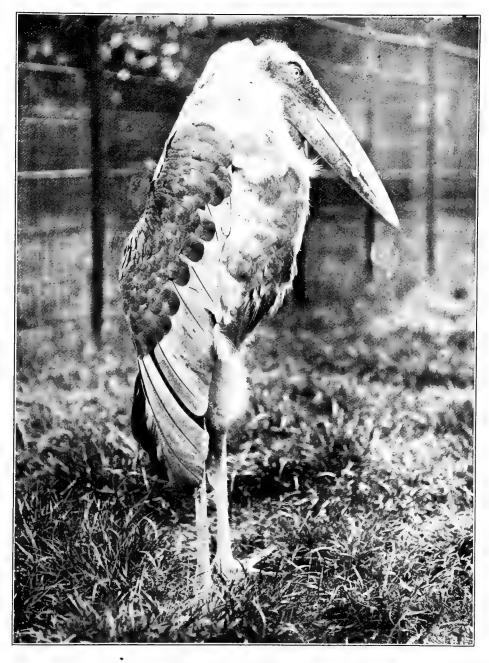
Then there is the well-known ADJUTANT STORK that figures in so many pictures and photographs of life in Africa and India. He is greatly valued for the good work he does as a scavenger, especially of the offal thrown out from the butchers' shops. His digestion is really extraordinary; he will bolt the most indigestible-looking things and be none the worse.

His beak is very large compared with that of the White Stork, and huge mouthfuls (a joint of meat, for instance) sometimes find their way down his capacious throat.

One of these birds, tamed and reared as a household pet, used to stand solemnly behind his master's chair at dinner, and have his portion with the rest of the family. But so shameless a thief was he, that the servants had to have sticks given them to prevent the privileged creature from raiding the dinner-table. Now and then he contrived to dodge or outwit the servants, and gobbled up one thing and another. Once, having picked up a boiled fowl and been chased round the room, he coolly swallowed it whole!

There is an amusing story about another Adjutant told in a letter sent home from Stanley Pool by the late Mr. Comber, the Congo missionary, to his little brother in England.

He had bought the bird from the natives, and its wing being injured it was allowed to strut at liberty round



THE ADJUTANT STORK.

about its master's house. He writes, "We had a nice little baby monkey here a little while ago, and it died. One of the boys held it up by its tail close to Chickabiddy's (the Adjutant's) beak, and he swallowed it all down at one gulp, leaving only a little bit of its long tail hanging outside the beak. Then two parrots died, and Chickabiddy swallowed them down also in the same way—feathers, bones, beak, and everything.

"But strangest of all was the dinner Chickabiddy tried to get yesterday (Sunday). I had my Bible class in my room, and was talking to the boys, when I heard one of my little kittens cry. At the same time I heard Chickabiddy making a great noise outside in the hall. I jumped up to see what was the matter, and looked all about, but could see no kitten, although I very distinctly heard it crying.

"Then I looked at Chickabiddy, and saw that his long neck was very much swollen out, as if he had just swallowed something, but his long beak was close shut. Chickabiddy had swallowed my kitten! From right down his throat we could clearly hear it crying. We opened his beak, and there we saw a little bit of tail just showing in the throat. I pulled at the little bit of tail, and pulled and pulled and pulled, until the little kitten was pulled right out, all wet and crushed, but still alive and well. Wasn't it funny?"

The Adjutant is a most odd-looking bird, and his antics and posturings are as ugly and comical as you could well imagine. Part of his ugliness is due to his enormous beak, but part also to his almost bald head, and the large puffy pouch which hangs at his breast. This peuch can be blown out at will, just like a child's toy balloon.

My girl readers will think of the Adjutant chiefly as

the bird from which are got the pretty, fluffy Marabou feathers used by milliners for boas and trimmings.

A distant cousin of the Adjutant is the Jabiru of South America, Australia, and other places, a beautiful bird with jet black and pure white plumage.

Lastly, a word about the strangest-looking of the Stork family—the WHALE-HEADED STORK, with his enormous beak. He loves the warm edges of the big African lakes or the steamy marshes, where food is abundant—fish and frogs and water-snakes. Sometimes, for a change, he will thrust his clumsy hooked beak into the carcase of some dead animal. The hook well serves his purpose, being strong, curved, and sharp as that of a bird of prey.

Sometimes two, sometimes as many as a hundred, will be seen feeding together. If disturbed they rise and go flying low over the water, but if they think there is real danger they will soar, as the White Storks do, to a great height, until the intruder has passed on.

THE KINGFISHER.

E is the most brilliant of English wild birds. When he flashes out into the sunshine from the shade of the bushes and trees that fringe his favourite stream, he looks like a veritable living jewel.

For where can you match among our northern birds his wonderful colouring? He has been likened to a sapphire by some; by others, to an emerald. But he combines the colours of both these gems and of more besides.

If a single Peacock can give glory to a big garden, a single Kingfisher can give glory and interest even to a dull little watercourse, and he is but a pigmy compared with the stately bird that has the stars in its fan. Even the prosy person who does not care about wild birds in general is all alert when this glittering marvel flits past him up or down the brook or river.

It is rather surprising, when you come to think of it, that there are so many Kingfishers left in this island of ours. For, unhappily, it is all too true that for a bird to be beautiful means that it has many enemies—people who care nothing for it for its own sake, but covet it for the profit they can make out of it. Some of them kill it for the sake of selling its plumage to the dealers, who in turn supply it to the milliners, or to the makers of fishing tackle, who use the bright blue feathers for making certain flies for fly-fishing. While others stuff the poor little dead body and put it under a glass case—as if there could

be any comparison between the stuffed dummy and the living bird flashing backwards and forwards between the banks of its native stream.

Yet another enemy there is—the person or persons who own the fishing rights of the stream, and who are not ashamed to confess themselves enemies of every Kingfisher in the district, just because the bird is a fisherman too, and takes his share of the good things under the water.

Let us hope that as the love of wild Nature becomes, as it certainly is becoming, more widespread, the Kingfisher will not only be spared, but will be jealously protected, and will be welcomed to every waterway where he shows a disposition to take up his quarters. Already there are laws and rules framed to safeguard him, and on some rivers he is more commonly to be seen than he was five-and-twenty years ago.

One enemy that I have not mentioned cannot be guarded against, unfortunately. This is King Frost. More fatal than the shot gun of the mischievous fellow who wants to "bag" the bright-feathered bird, is the silent pitiless grip of winter, which no swiftness of flight can elude. When once the surface of brook or river is frozen over, the Kingfisher's food-supply is cut off. Then, unless he can make his way down to open water—and it may be too far for him to travel—he dies.

Richard Jefferies, that close student of the life of the countryside, tells of an instance, in one of his books. "I recollect," he says, "walking by a brook, and seeing the blue plumage of a Kingfisher perched on a bush. I swung my gun round, ready to shoot as soon as he should fly [Jefferies was somewhat too ready to use that gun of

his]; but the bird sat still, and took no notice of my approach.

"Astonished at this—for the Kingfisher sat in such a position as easily to see any one coming, and these birds generally start immediately they perceive a person—I walked swiftly up opposite the bush. The bird remained on the bough. I put out the barrel of my gun and touched his ruddy breast with the muzzle; he fell on the ice below. He had been frozen on his perch during the night, and probably died more from starvation than from cold, since it was impossible for him to get at any fish."

And he adds: "More than once afterwards, the same winter, I found Kingfishers dead on the ice under the bushes, lying on their backs with their contracted claws uppermost, having fallen dead from roost. Possibly the one found on the branch may have been partly supported by some small twig."

So long as the frost is not severe enough to lock up their fishing waters, these birds seem happy enough, though so bright a creature seems to need the sunshine for its proper setting. The late Mr. Cornish has left us a charming word-picture of Kingfishers at play at this season. It was "a brilliant, warm, sunny morning in early winter," and he had walked out before breakfast to Clifton Bridge.

"The shrill cry of the Kingfishers was heard on all sides. I counted seven, chasing each other over the water, darting in swift flight round and round the pool, and perching in a row to rest. Presently two flew up and hovered together, like Kestrels, over the stream. One suddenly plunged, came up with a fish, and flying to the other, which was still hovering, put the fish into its beak.

After this pretty gift and acceptance, both flew to the willows, where, let us hope, they shared their breakfast."

Few of us can think of the Kingfisher as other than a

Few of us can think of the Kingfisher as other than a low-flying bird; yet some present-day naturalists note its power to fly high when it wishes to. It is usually in courting time. Then, says one observer, "they will sometimes rise high in air and top the tallest trees. I have seen one fly over the old thatched rectory at Stafford, making for the nest it had constructed in a deep railway cutting" (an unusual place, as he admits). And Dr. Bowdler Sharpe refers to the fights that ensue between Kingfishers (especially when one has trespassed on the fishing preserves of another) as often being waged high in air, to the accompaniment of shrill and angry screams.

But soaring is not their characteristic way of flying. A Kingfisher's usual flight is straight as an arrow from a bow, and almost as swift. Many of my readers know that to be true. When out on some river they have been told to notice the passing of one of these birds, and almost before they could turn their heads, a glint of blue far down the stream was all that remained for them to see. The wings though short are very strong, and the long sharp beak held straight out seems to cleave the air as the cutwater of a ship divides the waves.

This habit of flying straight has often led to the bird being shot even by "sportsmen" of no great precision, in spite of its rapidity. Another fatal habit is that of flying off in one favourite direction, which its enemies soon find out and make a note of.

The Kingfisher is not a sociable bird, as regards others of the clan. He and his mate prefer, like the old frontiersmen, to dwell "away from the crowd," and, as we have already seen, they are quick to resent any

trespass on their domain. But there comes a time when the pairs are apt to leave their particular haunts, and go where others go. This is when the approach of winter gives hints of frozen brooks and lakes, and tells them, in that mysterious way that no one seems to understand even now, that it will be wiser to frequent the broader rivers, and especially the river-mouths, where there is too much movement and perhaps too much sea-salt in the waters for the frost to work its will.

When they resort thus to estuaries and seashores, tiny crabs, sandhoppers, shrimps, and the like are added to their diet; and in their usual summer haunts they will often catch and eat water-beetles and dragon-flies. But first and foremost they are fish-eaters, and the number they manage to catch, especially when they have a full nursery to provide for, is surprising.

Although the young birds do not get the vivid colours of their parents till their second spring-time, it is a very pretty sight to see them sitting together outside their burrow-like home. Jefferies describes how he came upon a family of little 'fishers waiting to be fed. It appears that they took up their position there day after day:

"One summer, I found four young Kingfishers perched in a row on a dead branch crossing a brook which ran for some distance behind a double-mound hedge. . . . Every now and then the parents came with small fish, which they caught further down the brook."

And he goes on to point out what a favourite place for a Kingfisher to use as a perch, when he is on the watch for his prey, is the lower boughs of a hawthorn, which is so often "thick and impenetrable above, but more open below, just above the water. . . . When passing such a bush, how many times have I seen a brilliant streak of azure shoot

out from the lower branches, and watched a Kingfisher skim across the meadow, rising with a piping whistle over the distant hedge."

Fish, two or three or four inches in length—roach and the like—are its usual food, but now and then a greedy desire for a larger prize has led to tragic consequences! Mr. J. G. Wood mentions having come across an instance of a Kingfisher that had been choked in trying to swallow a bull-head (fish), and Quekett tells of another case where the fatal dainty was a young dabchick!

To see a Kingfisher sitting motionless, as is its habit, on some post or branch or stone, above and close to the water, watching till a fish of the right sort comes near enough, and then plunging beak foremost into the depths, is to see one of the prettiest and most interesting sights of the countryside.

Having made its capture, the little blue fisherman flies up to its perch, the shining drops streaming off its feathers, and sets about killing its silvery and very lively victim. "I have often watched this process," says Mr. John Lea, "and on every occasion it has been performed in the same manner. Holding the fish firmly in its beak, crosswise, the bird gives its captive two or three quick bites, jerking it sideways a little after each one so as to injure it in a different place every time. Then, with a vigorous movement of the neck, it beats the fish's head against the rock or bough on which it is perched and so stuns it; there is more biting, and again two or three sharp blows; and with a dexterous jerk the fish is brought lengthwise into the beak and swallowed."

That is the description of a close observer. He also reminds us that the fish is always gulped down head first,

for the simple reason that otherwise the projecting fins might very easily stick in the bird's throat.

The Kingfisher is a shy bird, and wary to a degree; but at times it would seem as if he had an unaccountable "fit of friendliness" for man—at all events, moments when his natural shyness deserted him.

Here, for example, is what happened to one bird-lover. Mr. J. E. Whiting relates, in a magazine article, how he was sitting quietly on the banks of a brook, watching the birds and the butterflies. It was a glorious summer's day, and he had been out insect-hunting. Stopping to rest, he had rigged up a rod and line, using a bent pin and the long stem of his butterfly-net, and, half in earnest, started fishing.

Presently "a very fine Kingfisher came flying up stream towards where I was sitting. I fully expected that, on seeing me, it would dart on one side, and so return to the stream higher up. But it came straight on, and, to my surprise and pleasure, actually alighted on the rod which I was holding over the stream. I scarcely breathed for fear the slightest motion on my part should frighten it away. It looked at me in a friendly sort of way, as much as to say, 'I am not at all frightened, we understand each other'; and at once began to clean and plume its beautiful feathers deliberately with its long bill."

The bird stayed as long as it wished to, and then having finished its toilet, changed its perch for another only a little way off. Finally, it dived for a fish, killed and swallowed it, and flew away round a bend in the brook.

The nest of the Kingfisher hardly deserves the name. It usually consists of a tunnel in the bank of a stream, the opening being no larger than is needful to allow the parent bird to slip through. This tunnel sometimes runs inward for as much as three feet, and leads to a round cavity which is the nursery. Here the half-dozen white eggs are laid on a very "messy" floor, littered with fish bones old and new, and other ill-smelling refuse.

How in the world the brilliantly dressed family manages to keep itself so spick and span, while using such an exceedingly dirty refuge, it is hard to explain. For which of us has ever seen a Kingfisher with plumage "the worse for wear?"

Before I have done talking about the Kingfisher of our own country, I must mention one or two curious old fancies that our forefathers held concerning this bird.

One was that if a dead Kingfisher or Halcyon, as it was often called, was hung up under the roof or ceiling, it would always turn its breast in the direction from which the wind was blowing. The belief was common even in the days of Queen Elizabeth, and one great English poet who wrote a little while before Shakespeare, Christopher Marlowe, makes one of the people in his play, *The Jew of Malta*, say,

"But how now stands the wind?

Into what corner peers my halcyon's bill?"

Wiser folk, even then, laughed at such a silly notion; but it survived down to Queen Victoria's reign, and perhaps even now has not quite died out in some out-of-the-way villages and farmhouses.

Another queer fancy was, that by putting the dead body of one of these birds into a wardrobe or clothes-chest, it would ensure protection from moths. A still bolder superstition pronounced the wearing of a single feather from this bird to be a reliable charm against lightning!

The name Halcyon carries us back to the days of the

old Greeks, and is connected with one of those beautiful legends that their poets loved to repeat in equally beautiful verse that some of you will read one day. Out of that story arose the belief that for fourteen days the stormy winds refrained from disturbing the calm of the blue sunlit



Photograph by]

THE BUFF LAUGHING KINGFISHER.

[W. S. Berridge, F.Z.S.

seas, where the little Kingfishers were being hatched in a floating nest.

It was only a pretty fancy; but you will find it peeping out in many a page of those old writers, as in one of the shepherd songs of the Sicilian poet Theocritus, which Mr. Andrew Lang has turned into musical English prose: "The Halcyons will lull the waves, and lull the deep, and

the south wind, and the east, that stirs the seaweeds on the furthest shores—the Halcyons that are dearest to the green-haired mermaids, of all the birds that take their prey from the salt sea."

The Kingfisher of our English streams is met with in many parts of the Continent, but chiefly in the southern half. Mr. Lodge saw it as far west as Spain, and as far east as Roumania.

But it has an army of cousins—the various species of this family number no less than one hundred and sixty—and in colouring they differ a great deal. Their habits differ also. Some are water birds, while others are wood birds; the former being mainly fish-eaters, and the latter preying on insects and reptiles, and the crawling things that live on the mud-banks and the sandy shores.

They are found in America, North and South, but the sun-steeped lands of Asia can show far more, and the colours of these are often more vivid even than our English species. Australia also has several kinds, among them being that bird of the strange cry, the Laughing Jackass.

Early in 1907 the London Zoo received a specimen of the rare Buff Laughing Kingfisher, which is found in the northern regions of Australia, and is a very shy bird indeed. It frequents thick forests, and loves to perch on some projecting dead bough, high in the tree-tops. Here, sentinel-wise, it watches everything, and therefore cannot easily be approached. From this high "watch-tower" it pours out its loud harsh notes.

THE RAVEN.

E is famous in song and story. The oldest book in the world introduces him to us, and all down the ages he has been treated with a certain degree of respect.

To begin with, he is the first bird mentioned by name in the Bible. In the picturesque story of the Flood, before any other living creature had ventured to issue from the Ark, forth flew the Raven. We can see the great black wings flapping slowly as he sails over the wet mountainside and the water-logged valleys, coming home at night-fall to rest on the roof of his old refuge.

A thousand years ago and more, the Norsemen found a place in their religion for the Raven. They spoke of Odin, the All-father God, seated on his throne, with his two Ravens, Thought and Memory, sitting one on each of his mighty shoulders. Thus perched, they whispered into his ears all the secrets of the world which they had gathered during their daily flight.

When these old Norse warriors went on the war-path, no emblem pleased them better than that of this bird, whose delight, like theirs, was to hasten to the prey. In the long strife which they waged with our hardy forefathers in the days of King Alfred, there was at least one famous Raven standard, the capture of which was mourned as an irreparable loss. For it was supposed to presage victory except when, in some mysterious way, it drooped in warning of approaching disaster.

There is a story which connects the Raven with the discovery of Iceland by the Norsemen. One of this hardy race, Flokki by name, sailing westward over the desolate northern seas, and being sorely perplexed as to the direction in which land might be found, set free in succession three of these birds which he had brought with him. The first two flew back home, but the third flew away towards the north-west. Noting the direction, Flokki headed his galley thither, and in due course reached the island, which till then seems to have been unknown to his countrymen.

Among the monkish legends which gathered round the memory of this and that holy saint and hermit, in those far-off days, a quaint story is told of St. Guthlac.

He had sought out a dwelling-place in what he knew to be the loneliest, dreariest wilderness in all the eastern shires. This was the Great Fen, where land and water seemed to be always striving for the mastery and each spoiled the other, so that no great distance could be traversed either by keeled boat or foot of man. But St. Guthlac learned of one spot of firm ground—the same where afterwards was reared the famous Abbey of Croyland—and there he built himself a hut in which to meditate and pray.

His fame as a holy man spread far and wide, and many a visitor had he. Some came for healing, and some for teaching. But both he and they were much troubled by reason of the thievish practices of the fen Ravens; for, grown bold in the solitude, they would swoop down and snatch from these pilgrims any trinket or dropped coin or ornament of dress which took their fancy.

Then the Saint reproached the Ravens for their evil ways, and the birds listened and hung their heads, and finally flew down to him carrying the stolen articles in

A PAIR OF RAVENS.

[Drawn by CECIL SCRUBY.

their beaks. Thereupon he commended them, and the black penitents showed by the flapping of their wings that they rejoiced in his forgiveness.

Another monkish fancy was that which the old four-teenth-century traveller, Sir John Mandeville, heard when he visited the convent of St. Catherine at Mount Sinai. He was told that the oil used for the lamps of the church and also that which was eaten at table, was largely provided by the Ravens and crows and other wild birds, who assembled there "every year once," as if on pilgrimage. "And everych of them bringeth a branch of the bays or of olive in their beaks instead of offering, and leaveth them there; of the which the monks make great plenty of oil. And this is a great marvel."

A far less kindly and devout reputation belongs to the Raven in old English poetry, especially in the Border ballads. Wherever there was fighting between the Scots and the sturdy men of the northern counties, the evening of the battle brought the Raven. Over the field he flew, and perched on one low-lying head after another, pecking out the sightless eyes of the dead and often attacking the helpless wounded.

No wonder he was hated, and his name grew to be associated with carnage and cruelty. For he not only profited by man's sufferings; he was popularly supposed to be a veritable harbinger of doom, a foreteller of coming death, or at least of great misfortune.

"The raven's hoarse note from the bough Did toll his funeral knell."

But somehow the Raven seems to have been even more respected than hated, except perhaps by the shepherds, who had to keep ever on the watch lest some lagging sick ewe or straying lamb of their flock should be pounced on and blinded before they could hurry up and drive the marauder away.

The Raven is found "all over the world"—or nearly so. His range includes the whole of Europe, and the northern half of Asia; and in America he is found, or used to be found, from Guatemala northward to the dreary realm of the Ice King. There are also three sorts of Ravens in the continent of Africa.

It is chiefly in northern Europe that we find queer folk-lore fancies gathering about the Raven. "In Sweden, the country people believe that the Ravens which croak by night in the forest swamps and wild moorlands are the ghosts of murdered persons, whose bodies have been concealed there by their undetected murderers, and have not received Christian burial. In some parts of Germany witches, it is believed, ride astride upon the Raven, and the Evil One himself takes on the form of this bird."

Among the Redskins of North America the Raven is put to weird uses. The medicine-man, when he affects to be peering into the future, is said to carry on his back three Raven skins "with their tails fixed at right angles to his body, while, on his head, he wears a split Raven skin, so fastened as to let the huge and formidable beak project from the forehead."

Despite his being black, and belonging to a black family (for he is the biggest and most important member of the great clan which includes the crows and the rooks), the Raven is really a very handsome as well as a very dignified and stately bird.

His feet and his beak are black, as, too, is the whole of his plumage; but the upper parts and the breast are beautifully glossy, and in a good light you may notice that these have a bright purple sheen, or it may be steel blue or green. He is usually about twenty-six inches long, and his outspread wings measure more than a yard from tip to tip.

He is one of the birds that are believed, with plenty of reason, to live to a very great age. Of course this is difficult to calculate in the case of those that are wild, but many instances have been recorded in which a tame Raven has reached the age of seventy years without showing the least signs of feebleness or dullness; and it is hardly likely that a captive, however well cared for, would live quite so long as his wild free brothers.

In his natural state, the Raven and his mate begin housekeeping quite early in the year. In England they are at the nest as early as January, and the half-dozen eggs are hatched, as a rule, before the close of February.

The nest, like that of the Stork, is usually a very old affair. For, if not scared away, a pair of Ravens will use the same nest year after year, "merely repairing or adding somewhat to the structure, which consists of a mass of sticks and heather, with a dense lining of sheep's wool, or something equally soft."

In our own island, especially in the southern half of it, a Raven's nest is now rare indeed, and where it remains it is usually in a specially high and inaccessible place. In England this crafty bird has need to exercise all his wit when it comes to choosing a position to build in—either a lofty crag, a steep cliff, or a very tall tree standing alone, is the usual choice.

The late Mr. Bosworth Smith, who was specially interested in the Raven, writing in 1905, says: "Till lately—I do not know whether he does so still—he bred on Flamborough and on Beachy Head, and on the Freshwater cliffs in the Isle of Wight. But he seems to cling most

fondly of all to the coasts of Cornwall, of Devon, and of Dorset. In a walk of moderate length along the Cornish coast from the Lizard, I have watched three Ravens busy about their nests. I have seen them and heard of them repeatedly on the splendid stretch of coast which runs between Thurlestone and Salcombe in South Devon; while, in a rather longer walk, along the coast of Dorset, from Whitenose Cliff to St. Alban's Head, I have known at least four pairs of Ravens rearing or trying to rear their young." And he instances also Swyre Head, Gad Cliff, and Studland as each the haunt of a pair of these rare birds.

In the wilder North, though he has greater freedom of choice, the Raven seems to take care to select a spot where intruding man is least likely to come. Here is a word-picture of one such nest in Inverness-shire, from the pen of the late Mr. Charles St. John.

"The whole country within view of the lake was picturesque and bold. In the rocks near the water were a colony of wild cats, whose cries during the night deterred the shepherd from passing that way; while on the highest part of the grey precipice was a Raven's nest, the owners of which always kept up a concert with their voices of ill-omen, whenever they saw a human being near their dominions.

"There they would sit, on a withered branch of a tree or a pointed rock, croaking and playing their quaint antics for hours together. Their nest was so protected by a shelf of rock which projected below it, that I never could get a rifle-ball into it."

Although they take such good care to build as much as possible out of reach of their great enemy, Ravens show surprising courage in "facing fearful odds." The swift

sharp-beaked kite, the prowling cat, the barking dog—they will face any of them; even man himself has cause to fear the wounds which that strong wedge-shaped beak can inflict.

Occasionally they will take the offensive and bluff even a large dog. A case in point is related by a correspondent of the *Field* newspaper in February, 1907.

He tells how he watched a pair of Ravens, one winter's day, in the previous year, hovering over a hillside, where two collies were chasing a rabbit. "The dogs were yelping freely, and by and by drove the rabbit out near the top of the hill, when in making for its hole it was so unfortunate as to run into a trap.

"The rabbit's squeals quickly attracted the attention of one collie. He was hastening up to it, when the Ravens lurched down from above with such threatening croaks as fairly made the dog turn tail, and both he and his companion set off homewards.

"Meanwhile, the Ravens alighted beside the rabbit, and one of them quickly killed it with a blow on the head. The frantic struggles of the poor animal in the trap had not disconcerted the birds in the least. Nor was any jealousy displayed between them as to who should have the titbits. In a surprisingly short space of time, all that remained of the rabbit were the bones and a few scattered pieces of the furry skin. Then the Ravens, after wiping their beaks upon the grass, again soared aloft, still quite unaware of the silent watcher sitting among the trees a little way off on the opposite hillside."

Speaking of the boldness of the Raven, one writer remarks: "It is said that he will never attack a man. If this be true, it is, I think, not so much from any want of courage, as from his perceiving what will pay and what will not. A Raven, and still more a pair of them, will beat off and mob the formidable Skua gull or the Iceland falcon. He will even engage in a not wholly unequal combat on the ground with the long-necked heron, one direct blow of whose spear-like beak would kill him on the spot."

An instance of still more surprising audacity is mentioned by Mr. R. B. Lodge, who, while in Albania, watched a pair of Sea Eagles "flying in great circles over the forest, constantly pursued by a pair of Ravens, which bullied them most persistently, making all the time a great outcry. It was an extraordinary sight to see the great eagle flying away from the Ravens, and by dodging and turning doing its best to evade its pursuers, without attempting once to retaliate or to defend itself."

A Raven's bill of fare is a very varied one. He does not seem to mind whether his next meal is fresh killed meat or carrion; he enjoys both. A dead or ailing sheep, a young partridge, birds, mice, and rats, each of these is a dainty dish in his estimation. But, failing such good things, he will make a meal off fruit or grain, insects, or shellfish. And one naturalist, Mr. Howard Saunders, tells how he has seen in the Balearic Islands a pair of Ravens following the plough just as rooks do in England, and for the same reason.

Says Charles St. John: "When a whale or other large fish is driven ashore on the coast of any of the northern islands, the Ravens collect in amazing numbers, almost immediately coming from all directions and from all distances, led by the unerring instinct which tells them that a feast is to be found in a particular spot."

And the same writer gives a striking instance of this instinct. He had shot at a stag, but the wounded animal

had got away. Two days later he noticed two Ravens flying in the same direction, in a straight line. Then two more; and yet again two more. The Highlander who was with him predicted that where the Ravens would alight, there he would find the missing stag.

This proved quite correct. "The stag had evidently only died the day before, but the birds had already made their breakfast upon him, and were now on their way to their evening meal." Yet where the Ravens had come from was not clear. They were not common in the neighbourhood, and the Highlander had never seen more than a single pair flying.

Where the carcase of some dead animal attracts many different kinds of birds, it is said that the first bird to arrive is the Raven. Mr. Lodge, in one of his books, describes the coming of one on such an occasion.

"Presently, a deep guttural croak from the top of some tree near at hand would tell one that the Raven had arrived. After it had satisfied itself that all was safe, it would fly down and advance with long hops to the feast. Sometimes I had from six to a dozen of these birds in front of me at a time, and could often hear them on the tree trunk within a few inches of my head. At times they made a curious bubbling kind of note, which might almost be called a song, accompanied with much puffing of the throat and long throat-feathers."

Ravens when tamed do not lose their sharpness of wits. There are plenty of stories to prove this. Let me relate one here.

A terrier dog belonging to the landlord of a country inn had grown to be great friends with a tame Raven. They not only were a good deal together, but even went off together frequently to the woods a-hunting. If it was rabbits they were after, the dog would do the "driving," while his feathered comrade posted himself at the entrance to the run, and pounced on the scared bunny as he ran out. If the latter was too large for him to kill by himself, he kept harassing it with beak and flapping wings until the dog came running up. Then the two made short work of their victim.

These two strange companions also used to go in for rat-hunting, and onlookers pronounced the Raven to be as quick and clever as a ferret.

Another dog and Raven friendship was one of the sights to be seen, some years ago, at the Red Lion Inn at Hungerford. A Bishop drove into the yard one day, and the wheel of his chaise brushed against a Newfoundland dog and passed over the poor creature's leg, bruising it badly. While he and the ostler were examining the limb, and doing what they could to ease the hurt, he noticed the Raven watching everything with great interest. As soon as the dog was tied up in the stable, the Raven went off and fetched the nicest bones he could find, and laid them before his disabled friend.

Better known is the story that Gilbert White tells in his *Natural History of Selborne*, but a good many of you may not have read it.

"On the Blackmoor estate there is a small wood called Losel's, of a few acres. In the centre of this grove there stood an oak which, though shapely and tall on the whole, bulged out into a large excrescence about the middle of the stem. On this a pair of Ravens had fixed their residence for such a series of years that the oak was distinguished by the title of The Raven Tree.

"Many were the attempts of the neighbouring youths to get at this eyrie. The difficulty whetted their inclina-

tions. But when they arrived at the swelling it jutted out so far that the most daring lads were awed, and acknowledged the undertaking to be too hazardous.

"So the Ravens built on, nest upon nest, in perfect security, till the fatal day arrived on which the wood was to be levelled. It was in the month of February, when those birds usually sit.

"The saw was applied to the butt, the wedges were inserted into the opening, the woods echoed to the blows of the beetle or mallet, the tree nodded to its fall; but still the mother bird sat on. At last, when it gave way, the bird was flung from her nest; and though her parental affection deserved a better fate, she was whipped down by the twigs, which brought her dead to the ground."

That is a sad story; but it is good to know that a bird, feared by so many creatures as cruel and pitiless, could yet show such devotion to her little ones that she stayed at her post even when the tree was tottering. Here was a Raven that knew how to be faithful unto death.

But there are other sides to a Raven's nature. He is a strange blending of dignity, impudence, and mischief. In the preface to his story, *Barnaby Rudge*, in which a wicked but delightful Raven is introduced, Charles Dickens tells us of the two Ravens from real life that gave him the idea for "Grip," the bird in his novel.

Of one of these he says laughingly: "Once I met him unexpectedly, about half a mile from my house, walking down the middle of a public street, attended by a pretty large crowd, and exhibiting the whole of his accomplishments. His gravity under these trying circumstances I can never forget, nor the extraordinary gallantry with

which, refusing to be brought home, he defended himself behind a pump, until overpowered by numbers."

And in the story itself, Dickens puts into the mouth of crazy Barnaby words that well describe the character which the Raven has got of being an uncanny bird who thinks deeply and knows too much.

"Call him down, Barnaby, my man!" says the landlord.

"I make him come?" answers Barnaby. "Him, who never goes to sleep, or so much as winks!—Why, any time of night, you may see his eyes in my dark room, shining like two sparks. And every night, and all night too, he's broad-awake, talking to himself, thinking what he shall do to-morrow, where he shall go, and what he shall steal and hide and bury."

A thief the Raven certainly is, especially where he is tempted by the glittering or glistening of any article. The Jackdaw of Rheims was not a greater culprit. The last Raven that had its home in Hyde Park had such a theft recorded against him. A lady, walking near the Serpentine, dropped her bracelet. In a moment the sharp-eyed Raven swooped down, and flew off with it. Most likely, when one of the great elms falls or is felled, that missing bracelet will come to light in a snug hollow of the tree.

Mr. Cornish tells how, one winter's morning at the Zoo, he was amused to see the Ravens busily collecting all the pieces of ice they could reach, and tucking them into holes round the edges of their big cage. And one of them, a cute fellow, thinking that his piece was likely to be noticed, being rather large for the hole, pulled it out again and smeared it over with dirt and grit before he put it back.

Talking of ice reminds me to say that the severest cold does not seem to hurt a Raven. He turns up unexpectedly in the Polar solitudes, showing as brave a disregard of the freezing air as the seals that lie along the edges of the ice-floes.

M'Clure, the Arctic navigator, tells us that even in cold so intense that wine froze when placed only a yard away from the fire, he saw the black wings of the Raven flapping across the dreary solitudes.

A traveller of our own day, Dr. Sven Hedin, tells how when he was crossing Tibet, in his journeyings of 1906–1908, "a lonely raven followed us for a month." But even in that awful wind-swept, frost-bound wilderness, the company of the bird was not welcome. For a Raven comes for what he can get, and he is a bird of prey. "I hate them," said Dr. Hedin, when lecturing before the Royal Geographical Society on his return, "they only wait in hope that somebody [in the caravan] will be left behind. And sure enough, when a pony succumbed to the bitter weather, the Raven at once picked out his eyes."

On Alaska Island the Ravens are said to be not only plentiful but cheerful, friendly sort of birds, "talking and croaking to each other all the day." And an Austrian naturalist tell us how he has seen them sitting on the housetops in the villages of Siberia.

But Ravens that belong to more southerly latitudes make a point of keeping away from man's dwelling, as a rule. Now and then they are not so careful, and the late Prince Rudolph, after shooting one in Southern Hungary, says: "I was quite amazed at having killed, close to a village and a high road, a bird which I had seen on the loneliest cliffs of our Alps, in the desolate oak-

forests of Central Hungary during snow and storm, on the barren peak of the Santi Deka mountain near Corfu, and among the precipices of the Dalmatian hills."

Much more might be said about the haunts and the habits of this intensely interesting bird. But let me, rather, close this chapter with a story of how two adventurous schoolboys overcame the difficulties that almost always beset the raider of a Raven's nest, and how they stormed the fortress.

The teller of the story, Mr. R. Bosworth Smith, who was also the chief actor in it, was then a boy at Milton Abbas School, Blandford. He had heard that in a lonely wood on the open down, some six miles from Blandford, there was an ancient Raven's nest. Many attempts had been made to reach it, but the tree chosen was too thick to climb, and for forty feet up no boughs projected.

"It was the 24th February, and the snow lay thick on the ground. When school was over at noon, I applied for leave to go to Badbury Rings, as the place was named." Leave was reluctantly granted, and, with another boy to assist him, the expedition was fixed up.

"We bought a hammer and a packet of the largest nails we could get, some sixty in number and some ten inches long, and we set out. But what with the weight of the nails and the hammer, and the depth of the snow, and our losing our way for a time, we did not arrive till half-past three o'clock. As we approached, we heard to our delight the croak of the Ravens, and saw them soaring above the clump or wheeling round it in pursuit of one another."

Making sure of the right tree, Smith began the work of scaling the lofty trunk, hammer in hand. Every nail he drove in had in turn to furnish foothold and support his whole weight, as he raised himself and drove in a fresh nail higher up. "The old birds, meanwhile, kept flying closely round, croaking and barking fiercely, with every feather on neck and head erect in anger."

It was an ingenious way of climbing, but it was a very risky one. "In spite of the exertion, my hands and body were numbed with the cold. As I climbed higher, the work grew more dangerous, for the wind told more. A slip would not only have thrown me to the ground, but have torn me to pieces with the nails which thickly studded the trunk below."

It took the bold young climber no less than two and a half hours to make the ascent, but the nest was reached at last. To his delight there were four eggs in it. (The Raven is one of the earliest birds to lay.)

"The nest was a huge structure, nearly as big as a heron's, but built of larger sticks and better put together. The eggs lay in a deep and comfortable hollow, lined with fibres, grass, dry bracken, a few feathers, some rabbit's fur, and, strangest of all, a large piece of a woman's dress—probably a gipsy's, for in those days gipsy encampments were common thereabouts."

The fast-falling winter twilight soon deepened into night, and the descent which would have been comparatively easy in a good light, had to be made slowly and with great care. "We did not reach Blandford till nine o'clock p.m., worn out with cold, hunger, and fatigue, but proud in the possession of the first Raven's eggs I had ever seen."

THE HUMMING-BIRDS.

THEY are the fairy-folk of the bird world. Beside them all other brightly-clad fliers look overdressed, clumsy in build, and heavy in movement.

It is only fair to the others to consider these wonderful jewelled beings as a race apart, a little people who must be judged and admired by themselves. And, indeed, they are numerous enough to be regarded so, while their variety of colour and adornment is positively bewildering. Fifty years ago a reliable Natural History writer gave the number of kinds discovered as "more than three hundred"; to-day some five hundred are known and named.

Almost all of them are tiny, though, to be sure, one prodigious member of the clan is a trifle over nine inches long! But he is such an exception that he is frankly named the Giant Humming-Bird. The average length is nearer four inches, and one wee creature is scarcely bigger in body than a humble bee, and measures only two and a half inches long.

The Humming-Bird family belongs to America, and is not found outside the New World. For they must not be confused with the little sunbirds, which live among the trees of Africa and Southern Asia and Australia, and which are very similar in appearance and ways of living.

But if the Humming-Birds are confined to the New World, they certainly take care to spread themselves over as much of it as they can. For, although if you want to see them in largest numbers you must go to the hot forest regions of Central and South America, there are some members of the tribe that find their way northward in summer-time into Canada, and actually even into Alaska—that bleak north-west corner of North America; while others have been seen in the bitterly cold southern end of South America, even when snow was falling. And one branch of this wonderful pigmy family prefers the bracing air of the mountain-side, flitting hither and thither over the bare slopes of the mighty Andes, 16,000 feet above the sea-level.

The early colonists in the Dutch and English settlements in North America, which have since become the United States, were full of surprise and admiration when they saw these lovely little creatures. In a book entitled Early Long Island, there are two extracts from letters written from America at the time when Charles I. was King of England. I give them in all their quaint spelling:—

"The Humbird is one of the wonders of the country, being no bigger than a Hornet, yet having all the Demensions of a bird, as bill, wings with quills, spider-like legges, small claws. For Colour she is as glorious as the Raine bow."

The other letter speaks of a "curious small bird, concerning which there are disputations whether it is a bird or a bee. It seeks its nourishment from flowers like the bee, and is everywhere seen regaling itself on the flowers. In flying they make a humming noise like the bee. It is only seen in Nieuw Nederlandt (New Holland) in the season of flowers. They are very tender (delicate) and cannot be kept alive, but we press them between paper and send them to our friends."

There are two things about the Humming-Bird which

are especially interesting, even apart from its amazingly beautiful colouring. One is its tongue, which is long and slender and hollow, and can be shot out suddenly to a surprising extent. This, of course, is to allow of the bird reaching its food, which is often hidden out of sight in the heart of some deep-belled flower.

The other thing is the strength of its tiny wings. This is seen, not in long travel-flights over land and sea (though, as we have seen, some of the tribe do travel far from their regular homes), but in their power of *hovering*.

Those of you who have only seen Humming-Birds stuffed, in a glass case—even though it be the magnificent collection at South Kensington Museum—can have no idea of the swift movement of their wings when alive in the forest. But if you have ever watched, as I have watched in my Hertfordshire garden, the flight of their moth name-sake, the humming-bird hawk-moth, suspended as it seems by invisible threads over some favourite flower, darting its long tongue or trunk into the honeyed heart of the blossom, you will have a very good idea of how a Humming-Bird hovers. Like this moth, its wings are beating so rapidly that they seem only to quiver—indeed you cannot see more than a grey film or mist on either side of the body. And when the bird moves elsewhere it glides off, and by so swift

¹ Since writing the above sentence, I have come across a passage in that well-known book of travel, The Naturalist on the Amazons, in which the author says: "Several times I have shot by mistake a humming-bird hawk-moth instead of a bird. It was only after many days' experience that I learned to distinguish one from the other when on the wing." And he quotes an amusing story of how Gould the naturalist had quite a stormy dispute with a gentleman who declared that Humming-Birds were found in England, for he had seen one flying about in Devonshire (of course, it was the humming-bird hawk-moth). Many of the natives in the Amazon forests, and even some of the white residents, believed that this moth changes into the bird, in the same way as a caterpillar becomes a butterfly.—H. G. G.

a movement that one's eye has to be very quick to follow it and keep it in view.

The beak itself is long, as well as the tongue. One kind, the Sword-billed Humming-Bird, in particular, has an exceptionally long slender beak, which enables him to overtake many an insect which has crawled up the long bell-like blooms of the gorgeous forest flowers; while the bill of another is curved to a really remarkable degree.

As you might expect, the nest of the Humming-Bird is a veritable fairy's cradle. It is woven of all sorts of soft and delicate things—the down from the stalks and seeds of certain plants and ferns, cotton-wool, and the like. It is quite a strong, durable little structure, but the outside is daintily covered with spider-webs and fragments of pretty lichen. Cup-shaped or purse-shaped, it hangs from some twig or leaf, and here the two almost transparent white eggs are laid and the tiny babies are cradled and fed.

The nest of one of the largest species, Waterton tells us, is distinguished by having the rim doubled inwards. He thought at first this was caused accidentally by the pressure of the mother-bird's body when brooding, but he found that it was intentional and made so for a purpose. He noticed that this species loved to build in the drooping branches of trees overhanging some shady fresh-water creek or unsunned forest stream. The winds that come blowing up these waterways shake and sway the hanging cradle to such a degree, that were it not for the in-curving edge to the nest, the precious eggs would speedily be jerked out.

P. H. Gosse, the traveller and naturalist, loved to watch these winged elves of the forest among the mountain valleys of Jamaica. He was charmed with their beauty, and with their swift fearless flight. "Sitting on a fallen log in the shadow," he says, "I have watched them sipping all around, flitting to and fro, coming and going, every moment disappearing in the sombre shade, or suddenly flashing out, with a whirr like that of a spinning-wheel, into the bright sunshine. Bold and unsuspecting, they might be seen exploring bush after bush, and coming, while I remained motionless, even within arm's length of me, busily rifling all the blossoms in rapid succession."

Words almost fail him as he tries to convey to his readers the brilliance and splendour of their colouring. Listen to this. He is describing the Fiery Topaz Humming-Bird.

"The general hue is a blazing scarlet, in fine contrast with which the head and lower part of the throat are deep velvet-black. The gorget of the throat is emerald green, with a cloud of delicate crimson in the centre. The lower part of the back and the upper tail-coverts are of that beautiful bronzed green which changes to orange gold, so frequently seen in this tribe; while the wing-quills and tail are purplish-black, except the middle pair of tail feathers, which are very slender, project to a great length, and cross each other—these are green with a purple gloss."

Mr. Gosse was anxious to catch and tame some of these gorgeously-clad fairies, but the result of his attempts was mostly disappointing. It was not, indeed, hard to get them to come near or even to slip under his uplifted gauze net, for they were "eaten up with inquisitiveness," as we say. But as soon as they found themselves entangled in the folds they took fright, and most of them died of sheer terror within a few hours.

Finally, he tried taking some of the young birds straight from the nest. This plan answered much better. The tiny nestlings were given syrup, and this they grew very fond of, especially when a number of minutely small ants crawled into the syrup.

So much at home, indeed, did these birds become, that in the room allotted to them each one, as soon as it had flown round and round once or twice, chose some particular perch for its own. There it alighted, and if any other fairy ventured to find a resting-place there, he was quickly given to understand that the first comer meant to keep the place to himself.

This reminds me that Humming-Birds, like the fairies in children's story books, are not above quarrelling. Indeed, they have pitched battles, now and then, fighting vigorously in the air. More often than not it is a case of "trespass" that has made them pugnacious, and they will defend what they deem to be their rights in the most spirited fashion. Every feather seems to quiver with anger. If it is some larger species of bird that has intruded, they often make most dangerous attacks with their sharp long beaks, aiming at the eyes of the invader.

One old writer, with a long Spanish name, declares that they will even hurl themselves at a human being if he comes too near them in nesting-time: "When they see a man climb ye tree where they have their nests, they flee at his face, and stryke him in the eyes, commyng, going, and returnyng with such swiftnesse, that no man would ryghtly believe it that hath not seen it."

Those species of Humming-Birds that travel (migrate) have need of courage, for in their long journeyings at the beginning and end of the summer they must needs pass through wide regions teeming with foes which could destroy them at a blow. But the chief safeguard of such pigmy birds of passage is the lightning swiftness of their move-

ments. Almost before the enemy has made up his mind to strike, the wee traveller has flashed out of sight.

The habit of thrusting their beaks into the heart of the glorious flowers that expand in the moist warm tropical forests once led people to suppose that Humming-Birds lived on honey. But we know now that their most usual food is insects—small flies, of which they eat a prodigious number, spiders, and such like.

Of syrup all Humming-Birds seem fond. Webber, a naturalist of last century, often found that he could lure back a captive that he had set at liberty, by putting a supply ready for it on its return to the window. On one occasion, having enticed several Ruby-throated Humming-Birds into a room by means of vases of tempting flowers, he caught one of his visitors in his hand, and sent his sister to prepare a meal of sugar and water for the tiny prisoner.

While she was gone, he gradually opened his hand to have a better look at the bird. "I saw to my no small amusement as well as suspicion," he says, "that it was actually 'playing 'possum'—feigning death most skilfully. It lay on my open palm motionless for some minutes, during which I watched it in breathless curiosity. I saw it open its bright little eyes to peep whether the way was clear, and then close them slowly as it caught my eye upon it."

But when the lady returned with the home-made nectar, the little captive shamming death could not resist the temptation to come to life again. It started up, and the next moment was busy sipping the sweet food out of the silver teaspoon held to its beak. Having drunk as much as it wanted, and refusing to take a drop more, the tiny creature sat on Mr. Webber's finger as coolly as possible,

and preened its brilliant feathers as calmly as if on a branch in its native forest.

Humming-Birds are very particular about their toilet. They are so spick and span, so graceful and bright, that one can hardly imagine such a thing as a draggled and unkempt member of this fairy family.

They love bathing. Bates, the 'Naturalist on the Amazons,' says: "I saw a little pigmy . . . one day in the act of washing itself in a brook. It was perched on a thin branch, whose end was under water. It dipped itself, then fluttered its wings and preened its feathers, and seemed thoroughly to enjoy itself alone in the shady nook which it had chosen."

It would seem that they bathe at almost any hour of the day, but the favourite time is when the long hot hours are ended and night is drawing on. At least one species, however, take their 'cold tub' at sunrise, when it is often very cold indeed.

Wallace, the scientist, noticed a number of blue and green Sabre-winged Humming-Birds dashing in and out among the leaves of a tree, which were drenched with the heavy tropical dew—a delightful way of cleaning their plumage, and one which they seemed greatly to enjoy.

Humming-Birds are so numerous, and many of them live in such remote forest regions, that it is to be hoped they will never become extinct. But tens of thousands of dead specimens are, or used to be until quite lately, collected and shipped to Europe for decorating ladies' hats.

As recently as the summer of 1908, Lord Stanmore told the members of a special Parliamentary Committee how, when he was Governor of Trinidad, he came upon a negro idly shooting these lovely bird-fairies—just for the pleasure of killing—and leaving them lying where they fell. And he declared that in Trinidad Humming-Birds used to be so common that they entered the houses, but now many species were extinct.

It is good, therefore, to know that for the last ten or twelve years, it has been forbidden in Trinidad for Humming-Birds and other birds of beautiful plumage to be sold and sent out of the island.

THE HORNBILL.

A MORE odd-looking bird than the Hornbill surely was never seen outside the realm of phantasy and fable. It really would seem as if Nature had gone out of her way to produce one bird at least that should be undeniably grotesque and ridiculous. Was it not Agassiz, indeed, who remarked that there were jokes in nature?

Here we have a bird with a beak enormously big in proportion to its body, with a helmet-like crest above it (sometimes almost as large as the beak), and—eyelashes! The odd effect is all the greater because the Hornbill is a serious-looking bird, with a certain air of dignity and gravity, as it sits with its head thrown back and its chest thrown forward. Moreover, formidable though this helmeted head appears, it is capable of doing very little injury except to reptiles and insects, and perhaps rats and mice.

The Hornbills are a rather numerous family. There are two large fellows with long legs, and nearly the size of a turkey, who are ground-walkers and live in Africa, and something like sixty others who are tree-dwellers and have short legs with strong broad-soled feet well fitted for gripping the branches on which they perch.

One of the former, the Abyssinian Ground-Hornbill, is not particular what he eats, so long as the quantity is sufficient. Small birds and reptiles, and the little furry creatures of the forest, are all sampled in turn. And it is interesting to know that when some snake, too large for

a single Hornbill to tackle, makes its appearance, he and his fellows will make a concerted movement against it. Such attacks often end in the death of the snake.

Mr. Abel Chapman, in his recent book *On Safari*, tells how, while hunting in East Africa, he heard one evening at sundown "a low booming call." Presently there came, "strutting towards us, great Ground-Hornbills—big birds like turkeys, with red pendent wattles. It was curious to notice how they squatted low to earth when a pair of Bateleur eagles passed overhead on their way to roost."

The tree-dwelling members of the family love the dense forest. Their home is among the thick green foliage, fifty, sixty, a hundred feet above the ground, where the berries and fruit they love are plentiful. Occasionally they come down for a bath in the forest pools, and they will spend some time probing the soil with the points of their beaks.

But the tree-tops are not long forsaken by them. They fly up to the first bough, and so by "a succession of easy jumps" they reach the highest branches, whence they send forth those "loud roaring sounds" which the traveller or sportsman, new to the jungle, may be forgiven for hearing with alarm.

Though active and lively enough, they are clumsy in flight, the wings flapping desperately. What with the noise of the wing-beats which (owing probably, as Mr. Ogilvie-Grant suggests, to the air passing between the open ends of the quill feathers) is said to be almost like "the rushing of an express train," and the noisy habit of clattering their beaks as they fly, the Hornbills cannot be said to be pleasant neighbours.

But in captivity they sometimes develop ways and whims which are decidedly interesting. For instance,



THE CONCAVE HORNBILL.

Levaillant, an old writer, tells an amusing story of one, a Violaceous Hornbill, which was brought to South Africa and kept in a menagerie, where it preyed on the rats and mice that found their way in between the bars and wire netting. He says: "The Hornbill was a general peacemaker in the menagerie, and whenever a quarrel arose among any of the other birds it immediately ran to them, and by the strokes of its beak compelled them to stop fighting.

"It even kept the larger birds in awe. I once saw it cause an ostrich to run away with all its speed, pursuing it half flying and half running. In short, it became the formidable tyrant of the whole menagerie."

This habit of enforcing peace by threatening war was all the more amusing because the immense beak which looked so imposing was really a very hollow weapon, with no great power of biting. In fact, the Hornbill that pretends to use force is very much of a pasteboard warrior.

The Rhinoceros Hornbill is perhaps the most peculiar and the most striking-looking of the tribe. The horny casque or helmet overtopping the great curved beak, its point curving up while the beak curves downward, is more developed than in any other species. Its colour is "dusky black, changing to greyish white below." The beak, which is some ten inches in length, is a yellowish white, with a red patch at the base.

This quaint fellow has a curious habit of jumping up and down on his tree-bough with both feet together—a trick imitated by the Dyaks in their dances. The Dyaks, by the bye, are exceedingly fond of the flesh of the young Hornbill, and like to adorn themselves with the tail feathers of the parent birds.

The Rhinoceros Hornbill loves to vary his diet with meat food in the form of dead game—the offal of deer and other creatures shot by the hunters. In some countries he is often tamed and kept in houses for destroying rats and mice, as we in England would keep a cat. He belongs to Malaya, Java, Sumatra, and the Philippine Islands.

The Violaceous Hornbill is a native of Ceylon. The Homrai and Rufous-necked Hornbills are Indian birds.

Perhaps the most interesting thing about the life of a Hornbill is what takes place at nesting-time.

The place chosen for the nest is a hollow in the trunk of some large tree, either where it has rotted away or where the white ants have been eating the wood. The hen-bird settles herself in this snug hole, and having no use for her longer feathers obligingly sheds them, very much as cloak or overcoat is thrown off when a person comes into a house and intends to remain indoors. She will not need the feathers for some weeks, and as they drop off they are roughly collected and trodden into what has to be called a nest.

When it is nearly time for the eggs to be laid, her mate proceeds to wall her up—for her own good and that of the family-to-be. The plaster used is a curious gummy substance, something like resin, which he packs round the opening of the hole where she is ensconced, till it is only just big enough for her beak to pop out and in. It is generally believed that this is done to prevent the thieving hands of monkeys reaching mother or children, while they are in such a helpless state.

All the time the mother-bird is sitting on the eggs, the male Hornbill keeps her supplied with food, jerking it into her mouth in the form of pellets. Should he unhappily be killed or disabled, it is said that other members of the

clan will come and take upon themselves his duties, patiently feeding the widow till such time as she is able to fend for herself.

That is not until some weeks after her nestlings are hatched out. She then breaks her way through the dry plastering-gum, and aids her mate in fetching and preparing food for the little ones.

THE THRUSH.

INLESS it be the nightingale or the skylark, where is there in the British Isles a bird whose music can equal the full rich beautiful song of the Thrush?

There are many bird-lovers who, having listened to all three, declare that they like best the clear fresh singing of the Thrush—at dawn, for example, or at the hour of sunset, when the day's work—of food hunting for his nestlings—is finished.

The nightingale, moreover, is a shy, retiring singer, whereas the Song-Thrush is a sociable fellow, who has a good memory for any little kindness shown him, and makes himself at home in croft and garden. Indeed, his boldness—which has nothing of the impudence of the sparrow—is part of his charm.

When those of our friends who have gone abroad think longingly of the old home fields and gardens, and call up the picture of

"Some wet bird-haunted English lawn,"

it is the bright eye and speckled breast of the Thrush that in fancy they will see. For though he is a bird of the woodland and the hedgerow lane, he loves to fly over rail and fence, and drop down on to the smooth-shaven grass plot with the flower-beds bordering it, and the background of tall shrubs and trees to retreat to if alarmed.

How well we all know him. He is always interesting to watch, even for the hundredth time. How amusing his ways are! He will alight suddenly on the grass, and look round as if surprised at finding himself in such a place. He takes a short quick run and dives for a worm, but raises his head the next instant as if afraid of being taken unawares. Then he attacks the worm fiercely, and pulls it half out of the ground. Another startled look and another pull, and his prey is at his feet. He may feast on it there and then; or he may fly off with it to share it with his family.

The sleek brown plumage, the trim figure, the beautiful speckled breast of white and buff, the dark intelligent eye, the little knowing turn of the head, held for a moment on one side as if listening—surely the Thrush is one of the most familiar of living things, in suburban and country gardens.

Snails are a food to which the Thrush is specially partial. To watch him breaking the shell to get at the juicy morsel inside is quite a study. Sometimes, instead of using as an anvil anything hard that happens to be near, he carries the snail to one particular stone that he has found, and which suits his fancy. The ground all round such a stone will be strewn with the tiny pieces of broken shells. My readers may have come across such stones.

The nest of the Thrush—formed like a small deep basin—is well known. It is usually built in tree or bush or thick ivy, and is made of grass with a lining of wet clay, which the bird smooths and presses with her body till the whole structure is very firm and hard. The lovely sky-blue eggs, spotted or freckled with black, are from four to six in number. They are laid quite early in the year, often in March.

Occasionally we hear of a Thrush nesting in an odd

place. In the spring of 1908, on a railway in Lancashire, one of these birds chose the platform of a signal-post at a noisy level-crossing. Between early morning and midnight some two hundred trains rattled past, and seventy on a Sunday; and—still more disturbing—a man had to climb up on to the platform twice a day. Yet, despite all these alarms, the plucky mother-bird hatched and reared five young ones with complete success. All the railwaymen knew of the nest, and made it a point of honour not to molest the little family.

"It is a pretty sight," says Dr. Bowdler Sharpe, "to see an old Thrush teaching one of its brood to pick up a worm. Having drawn the latter from the grass and broken it up so that there is no fear of its crawling away, the old bird places it before the young one, and pecks at the worm to show the latter how to take it up for itself. Then it taps the bill of the youngster and lays the worm again in front of it, till the little one begins to feed itself."

It is a common thing for a pair of Thrushes to rear two or even three broods in one season. The nestlings are very quaint, ugly little birds with large heads. I shall never forget, as a boy, first looking into a Thrush's nest in a bush on Hayes Common, Kent. Knowing the beauty of the adult bird, I was not prepared for the skinny little creatures with half-open eyes and gaping mouths, which lay crowded together in the nest.

Happily, that is not the view taken of their helpless little ones by the parent Thrushes. Their love and care are well known. Occasionally that love leads them to do things which seem to show something almost like reasoning power.

Some ten or eleven years ago I read in the correspondence columns of the *Spectator*, an account of a pretty

little incident which happened at Marle Hall, Llandudno, then a private residence. The former owner related the story, which I give here as nearly as possible in his own words.

"While walking in the grounds, three Thrushes came flying excitedly to and fro in front of me, so close that I could have caught them. Following their movements, I noticed that their course was always over my dog, a puppy, which was lying on the grass. Each bird as it passed struck at him with its wings. Going to the dog, I found that it held between its mouth and feet a young Thrush, fully fledged but not able to fly. I took the bird, quite unharmed, from the dog, placed it in the bush, gave the dog a little scolding, went my way, and thought no more about it.

"Next morning, seated at breakfast, I heard the cluttering of a bird just outside a door opening on to a terrace garden. Looking through the glass, I saw a Thrush hopping about. I opened the door and walked slowly forward. The bird hopped a yard or so in front. I retraced my steps, walking backwards. The bird followed. Again I did this, and again the bird followed me."

Then the gentleman, with a relative, left the breakfast table and went out into the grounds. The bird flew on before, looking round occasionally to make sure they were coming. So they went on, for a distance of some sixty yards, when the cause of the bird's strange conduct was seen. The little dog had found the young Thrush again, or another of the brood, and was lying mumbling it, in exactly the same place.

The bird was not injured at all, and was soon rescued and placed in a tree, where it was joined by its anxious parent. As the writer remarked: "The Thrush had evidently reasoned that the man who rescued her young one the day before would do so again if he could be called out."

The Thrush is one of the birds that stay with us all the year round. If some members of his clan fly southward across the sea when autumn comes, it is equally certain that many others cross over from the Continent and spend the colder months in these islands. Perhaps with the exception of the Shetlands, the whole of the British Islands know the speckled breast and loud clear song of the Thrush—the Mavis, as he is called in the north.

Do you know Robert Browning's little poem—the one in which he tells how he longed to be in England, when he was abroad and April had come? It has only eighteen lines, and six of them are about this bird—the Throstle, as so many of our poets have called him.

"Hark, where my blossomed pear-tree in the hedge
Leans to the field and scatters on the clover
Blossoms and dew-drops—at the bent spray's edge—
That's the wise thrush: he sings each song twice over
Lest you should think he never could recapture
The first fine careless rapture!"

Many attempts have been made to put the Thrush's song into words, but though some of these renderings are clever enough, the bold singer himself must give us the music if we are to have any notion of its richness and power.

The Throstle is not the only Thrush—not even the only one who stays in our island all the year round. He has a cousin not unlike him in general colouring, the Missel or Mistle Thrush, who gets his name from one of the many kinds of berries of which he is fond—that of the mistletoe.

He builds even earlier than the Song Thrush—as early as February sometimes. And this is quite in keeping with

his character, for "winter and rough weather" have no terrors for him, unless they cut off his food supply. A high wind, especially if rain comes with it, seems to rouse in him a kind of noisy joy, as with the Vikings of old. He flies to the topmost bough of some tall tree, and pours out his loud, ringing, boisterous song.

The country-folk used to call him the Storm Cock, a prouder and more sensible name than the one by which he is usually known.

He is a shy bird, and loves the open country better than the hedgerow lanes. But in defence of his nest he and his mate will attack even a hawk. There is a Welsh name for him which means "the master of the coppice," and the pugnacious way in which a pair of Mistle Thrushes will "clear out" all other birds from the neighbourhood of their nest explains why the title fits.

The nest is usually a rather unfinished-looking piece of work. Moss and grasses and lichens, with a few coarse plant stems, well stiffened with clay, are the favourite materials, but queer things are said to get woven into the structure occasionally. There is an old story of a lady in Ireland who lost her lace cap, one spring day. It had been laid out on the grass to dry, and it mysteriously disappeared. All search was vain. In the autumn, when the woods were growing bare, the remains of the lace cap were found forming part of the nest of a Mistle Thrush. The nest was empty; the birds had flown; but the lace had helped to bind the walls of their nursery together.

¹ The Mistle Thrush is said to breed even in the cold mountain solitudes of the Himalayas at the height of between 9000 and 10,000 feet, though in winter he comes down to the lower valleys.

THE FINCHES.

THE Finches are a large family. Naturalists have divided them into three groups, each having many members, but we can only deal with a few of them in this chapter.

There are the Grosbeaks, to which belong the Hawfinch and the Greenfinch, and sundry others which are not seen in the British Isles. Secondly, there are the True Finches, like the Chaffinch, the Brambling, the Goldfinch, the Siskin, the Linnets, the Sparrows, the Bullfinch, the Crossbill, etc. Thirdly, there are the Buntings.

You will see from this what an important clan this chapter has to do with. Some of the prettiest of our British birds belong to it, and some of our sweetest singers.

Of the first group, the Grosbeaks, by far the best known to English boys and girls is the GREENFINCH. He is found from Sussex right away up to the Orkneys, though the birds that go so far north are chiefly hardy far-fliers from the Continent.

He is a handsome fellow, though reckoned less so than the rest of the Finches; and if 'handsome is as handsome does,' he deserves praise of a double kind. For the number of caterpillars and insects which he consumes or brings to his hungry nestlings is enormous. And as a pair of Greenfinches will sometimes build as many as three or four nests in a year, we may guess how valuable his services are to the farmer and the gardener. On this

account, the damage he may do in the vegetable beds should be forgiven him.

Grain and seeds and berries are his other food. His strong broad beak enables him to break up and enjoy the hard sorts as well as the soft. But he is also partial to the wayside weeds that give him no trouble and can be stripped of their seeds without any one objecting—groundsel and chickweed and the like. When autumn sunlight broods over our gardens, and

"Heavily hangs the broad sun-flower,"

the ripening seeds of its great yellow disc are a feast which the Greenfinch loves exceedingly.

A little later when these garden glories are cut down and cleared away, he has to content himself with wild Nature's feast which is always spread—the scarlet hips of the wild rose, and the dark red hawthorn berries. And later still, when the snows cover up so many of the lowlier weeds that yield him food, he leaves the open country-side and pays visits to the farms and cottages.

"I have seen a flock of Greenfinches," says a naturalist friend of mine, "hundreds in number, pass like a bright green cloud as they flew by with the winter sunshine on their wings." That is the time when you may see their soft green and yellow plumage among the sparrows and other birds in the rick yard, all of them busily picking up the grain and the hay seed that lie waiting for these winged gleaners.

The GROSBEAK himself, or HAWFINCH, as he is commonly called, resembles the Greenfinch only in his large strong beak. His plumage is far less pleasing, though in a bright light the shades of reddish-brown

and the black markings of the throat and wings give him the right to be called handsome like his green relative.

But it is his beak which is the most noticeable thing about him. And a mighty, serviceable instrument it is for a little bird only some seven inches long. With it he rips off the plump covering of a fruit-stone—cherry, plum, what you will—and cracks it easily. He loves the kernel better than the soft pulp.

It is by his massive beak, too, that you are likely to espy and recognise him. For he is a shy bird, and not given to showing himself unnecessarily. There are probably more of his tribe in this country than we realise, though it has been noticed that for some years past his numbers have been increasing.

Even around London you will find him. Epping Forest is, or used to be, a favourite haunt of his.

I remember, some years ago, one very wet afternoon in June, walking through Highgate Woods. Everything was very still, and as I passed down one of the green alleys I looked up and saw a Hawfinch feeding her nestlings. I had never seen one before except in pictures, but the great beak told me at once what bird it was. The nest was high up on the bough of a tall tree—an oak, I think—and I might have watched for an hour or more, for the parent bird either did not see me, or refused to be scared.

Yet some writers have declared the Hawfinch to be one of the most difficult birds to approach, on account of its wariness and great timidity. One of these writers, Doubleday, says: "When in the forest, the bird usually perches upon the extreme top of some lofty tree, from whence it keeps so complete a watch that hardly a weasel

could steal upon it without being perceived and its presence reported by an alarm note, which is perfectly understood by other Grosbeaks, and, indeed, by all birds that hear it."

The Hawfinch is a rather late-building bird, the eggs being laid about the beginning of May, and not more than one brood is reared each year—a contrast to some of the other Finches.

Of the second group, known as the True Finches, there is none to equal the GOLDFINCH. If all bird-lovers were to vote on the question, the pretty bird with the three-coloured 'mask' over face and head—crimson, white, and black—and the yellow and black wings, would certainly come out at the top of the poll. He can sing, too, very charmingly, and he is rather an affectionate little fellow when he is well-treated in captivity.

For captive he is, only too often. Those pests, the bird-catchers, are always on the watch for him. And though they have to go further afield now than in past years, they are well aware that he is a bird worth taking some trouble to find and capture.

To-day, in England, many lovers of wild birds have never seen a wild Goldfinch, so rare has it become in some parts of the country. We envy those who knew the time when these beautiful birds were "so abundant in some districts that they were to be seen in flocks of thousands, like sparrows in a cornfield."

An old bird-catcher told Dr. Bowdler Sharpe that in his youth he once caught twelve dozen Goldfinches in a single morning, "placing his nets behind a hedge which then existed on the present site of the Great Western Railway station at Paddington."

Dr. Sharpe adds, out of his own recollection: "We can

remember when the Goldfinch was common in Berkshire, and flocks of young birds were to be found in autumn in places where a Goldfinch has probably not been seen for the last twenty years."

Less than fifty years ago, the fields round the town of Worthing, in Sussex, yielded no less than 13,000 Gold-finches every year to the nets spread for them. And Mr. Charles Dixon tells us that the late Henry Swaysland assured him, many years ago, that when a boy he could take as many as five hundred of these Finches in a single morning. Mr. Dixon was told, too, "by an experienced bird-catcher, that forty years ago, in South Devon, the Goldfinch bred in almost every orchard; whereas now it is one of the rarest birds in the county." It is pitiful to compare the "very abundant" of naturalists who lived in our grandfathers' days, with the "growing more rare every year" of present-day writers.

This change is chiefly but not entirely due to the bird-catchers. It is also traceable, to some extent, to the changes in the land.

You may remember how Charles Kingsley, in one of his *Prose Idylls*, deplores the passing away of the beautiful birds which once had their home in the Great Fen. That vast tract of country in Lincolnshire and Cambridgeshire, once a dreary swamp with tall reeds and rushes and alders, has almost all been drained, and the wading birds that loved it have well-nigh all gone. The same sort of fate has overtaken the wild birds which made their home in the waste lands where furze and ragwort, thistles and nettles bloomed and seeded year after year, without interference from man.

Those waste places, where grew great clumps of thistles, three and four feet high, with handsome purple heads fast changing into fluffy seed-vessels, were a paradise for Goldfinches. But the growth of towns and cities, and the using up of one tract of land after another for cultivation or for building, have driven away the Goldwing, as the countryfolk used often to call him.

You will readily guess why that is so. Pirstly, he is a true bird of the open country, unlike the Chaffinch who loves the hedgerow lane, or the Hawfinch who may be looked for in the quiet woods. Secondly, he finds his favourite food-supply destroyed. Neither the villa garden nor the ploughed field can make up to him for the rich feast which Nature provided, and which man has destroyed.

Thistle-Finch was another old name for him, and in Germany he bears the same: so particularly fond is he of this food.

It is one of the prettiest sights in the English bird-world to watch a Goldfinch clinging to a thistle-crown. The tall stiff stem is quite strong enough to bear the bird's light weight, though it may sway to and fro. Suddenly he will spring away, sending a shower of downy seeds falling, and dart off to some other tall stalk that looks as if it would be worth searching for ripe seed.

A poet who loved all beautiful things and grieved to leave them so early—John Keats—has a passage in one of his first poems, picturing these birds, which were common enough round London in his day—

"Sometimes Goldfinches one by one will drop From low hung branches; little space they stop; But sip, and twitter, and their feathers sleek; Then off at once, as in a wanton freak: Or perhaps, to show their black and golden wings, Pausing upon their yellow flutterings."

That last line is wonderfully true to life, as you will learn

if you watch these birds foraging for food. And if they are in your neighbourhood, it will not be hard to get near enough to do so, for they are not like some wild birds that take flight when you are half a field away. Moreover, it is easier and pleasanter to watch a bird that is neither in the habit of flying high overhead nor of hopping about the ground.

During the winter flocks of Goldfinches may be seen busy rifling the dry seed-vessels of thistle and dock and plantain; and if there be snow on the ground their bright colours are heightened by contrast. When spring comes, and the bare orchard boughs are white and rosy with blossom, the dainty nest is ready, hidden away in some hedge or bush or tree-fork—a marvel of delicate workmanship.¹

By that time, too, the male bird's pretty singing is heard less often. He and his mate are busy seeking out grubs and insects for their little ones—feeding their hungry nestlings and doing the farmer good service at the same time.

Two families are often reared in a season; and I have seen it stated that a pair of Goldfinches will sometimes build as many as four nests in one year!

Towards the beginning of October, the full-grown broods which for many weeks past have been all together in flocks—like children of different families at the seaside—prepare for their southward journey. Not all go; many remain, and are joined by bands of cousins from the Continent. But those who travel—migrate, as it is called

^{1&}quot; Outside," says Mr. Dixon, "it is composed of dry grass-stems, moss, and roots, these being bound together and garnished with spiders' webs, cocoons, and bits of lichen; it is warmly lined with vegetable down, hair, and feathers. Inside, it measures about two inches across and one inch in depth."

—make for certain favourite starting-places (Beachy Head is one), and take wing across the Channel.

It must have been to one of the stay-at-home birds that a little poem was addressed, which I remember being written for a magazine, some twenty years ago, by a young lad in Cornwall. Let me quote the closing verses—

"The summer past, thy nurslings flown,
Thou sittest idle all the day,
Nor hast thou piped a single lay;
But sing me one of all thine own

For old days' sake, and I will bring
Thee o'er the breezy heathery downs,
Where burdock-heads and thistle-crowns
Grow thicker than the buds of Spring."

Another Finch that loves the seeds of thistle and burdock is the SISKIN. He has not the gay colours of the Goldfinch, and his song though sweet is less loud and strong; but he is in equal demand as a cage-bird, especially in Germany.

In that country, whence most of his tribe seem to travel into England, he is freely caught. And the happy thing is that he does not mope in captivity, as a rule. He is a sunny-tempered bird, and makes the best of things. Give a pair of Siskins the materials for making a nest, and if they are in a roomy cage they will most likely set about the work and take a good deal of trouble over it.

They are gentle, affectionate little birds, and readily learn any pretty tricks that their owner is patient enough to teach them. I remember that one of the sorrows of my childhood was the death of a tame Siskin, which I had had for several years. His chief feat was the hauling up of his food-waggon. The tiny cart ran up and down a sloping board. The bird would pull it up with his beak, tucking

the coil of ribbon under his foot till he had eaten as much as he wanted; then he would lift his foot, and the cart by its own weight ran down again.

His sweet trustful ways endeared him to others beside myself. I have his little stuffed form still, but it gives no idea of the pretty appearance of the bird when he shook out his feathers, and sat, a little ball of grey-green fluffiness, regarding me from his perch.

Quite a list of places in England is given by Mr. Charles Dixon as having harboured the Siskin. But it is usually in the pine forests of Scotland that the nest is found, and often in very tall trees. The seeds in the fir-cones are what he loves.

But the colder weather drives him south, and then there is the chance of seeing him seed-hunting along some alder-shaded stream. He is often singularly free from shyness, and this makes the work of the bird-catcher unfortunately all too easy.

Though many Siskins come to us from Germany, their true home is, most likely, the forest regions of Norway and Sweden.

Few people who have travelled much along the roads and byways of England—walking, cycling, or driving—would deny that the CHAFFINCH is one of the birds most often seen beside the way.

Happily, he is also one of our handsomest birds. Indeed, a male Chaffinch in good plumage is almost as fine a fellow as a Bullfinch. His song is heard very early in the year, a welcome voice

"Telling tales about the sun, When there's little warmth or none."

The Germans have made quite a study of his song when at its fullest. Writing some fifty years ago, one naturalist states that, at that time, no price was thought too high for the purchase of a well-trained Chaffinch, the inhabitants of Thuringia sometimes offering a cow in exchange for a really good singer. As soon as a wild Chaffinch with a fine voice was noticed in the neighbourhood, it was quickly marked down and caught.

We in England are more familiar with his distinctive note of *pink*, *pink*, which is usually a sign that he is scared, or at all events not quite easy in his mind. But his time of song is a lengthy one—you may hear it from February or early March until as late as July.

A Chaffinch's nest is a beautiful piece of work, made of much the same kind of materials as that of the Goldfinch. It is usually about a fortnight in building.

If the Goldfinch has a rival in its claim to be the most beautiful of our Finches, it is the showy BULLFINCH with his slatey-grey back, black-masked head and lovely rosy breast.

I shall never forget my first sight of a wild Bullfinch. I was staying, one cold March, in a Hertfordshire village. Sauntering out early, before breakfast, up the fields behind the house, I suddenly came upon him. He was sitting with his breast towards me, on a low bough that was white with silver hoar-frost, and every twig and leaf in the bower was fringed and coated with rime. A minute he remained, while my memory took in the picture, and then he was gone.

"There is no shyer singer, perhaps, in our island," says Mr. Dixon, "or one so readily silenced at the least disturbance." He flies fitfully, sometimes almost stealthily. He haunts shrubberies and hedgerows, and alas! orchards and fruit-gardens. It is to be feared that the hard words thrown at him by the gardener are only too well justified.

The damage done by a pair of these birds is often very serious indeed.

Yet much may be forgiven him for his beauty. He is an ornament to any garden, and he has enemies enough—in nesting-time at all events: the jay, the weasel, the stoat—without the spray of shot from the gardener's gun.

The wild Bullfinch has no very grand voice. But in captivity and under a proper trainer, he can be taught to a wonderful extent. For size the Russian Bullfinches would take the palm, but for song-training one must go either to Sussex or to Germany.

Germany started regular training-schools half a century ago. A writer who visited one of them at that time tells us some interesting things about the process. "As a rule," he says, "they are formed into classes of about six each, and kept in a dark room, where food and music are supplied to them at the same time. The result is that when the meal is ended, if the birds feel disposed to tune up, they are naturally inclined to copy the sounds they have been listening to. As soon as they begin to imitate a few notes, the light is let into the room. This raises their spirits, and inclines them to sing.

"After being thus taught in classes, each Bullfinch is given into the charge of a boy, who plays his organ from morning till night, while the superintendent goes his rounds, regularly, to watch the progress of teacher and pupils. The training is continued for nine months. By that time, the bird has become so used to the air which it has been taught, that it can whistle it without mistake. Some birds are taught three distinct tunes, but few can master more than just one, and that quite a simple air."

Such is, or used to be, the way in which "piping Bullfinches" are trained.

Memory often plays tricks with this careful and costly education which "Bully" has received. And sometimes temper or wilfulness makes him spoil his own performance. Mr. J. G. Wood relates of a Bullfinch which he once knew, that "he had forgotten the first two or three bars of 'Cherry Ripe,' and always used to begin, in the most absurd way, in the middle of a phrase. He always finished with a long whistle, as of surprise, and then began to chuckle and hop about the table, as if greatly charmed with his own performance."

Perhaps the wilfulness of a Bullfinch makes him all the more interesting and lovable, as a pet. He has so many likes and dislikes. This he hates and that he loves. He will get in a furious rage with something or some one he has come to regard as his enemy; yet he has been known to die of a broken heart when he thought himself neglected by the person he loved.

Of the third group, the Buntings, little can be said here. They need and deserve a chapter to themselves. But mention may be made of the most common of them, the Yellow Bunting, better known as the YELLOW HAMMER.¹

This is the pretty bird whose plaintive note is said by the country boys to be best rendered by the phrase, "a little bit of bread and—no cheese," the first six words being said trippingly, and the last two prolonged in a doleful key.

Years ago, Gilbert White of Selborne noticed that the Yellow Hammer continued its singing well past Midsummer Day. This was, indeed, less than the whole truth. For it begins among the earliest birds in spring, and does not cease singing until September.

¹ More correctly the name should be spelt without the H, for it comes from the German word *Ammer*, a Bunting.

Other names given to the Yellow Hammer are the Writing Lark (from the curious scribbling marks on the eggs), the Yellow Yeldrick, and the Yellow Yoldrin.

In autumn and winter it feeds in flocks, often mixing with other hard-billed birds. They all "frequent the newly-sown fields and the stubbles laid down with clover; whilst a heavy fall of snow will cause them to visit farmyards and ricks, where they may often be seen clinging to the corn-stacks. If disturbed, the entire flock fly up into the nearest trees or hedges."

Like the Goldfinches, they show to advantage when the snow covers the ground. "I have seen," writes a correspondent of mine, "a bare hedgerow golden as though it were all a-flower with some bright blossom, where a hundred Yellow Hammers sat and chaffered."

THE OWLS.

"A LMOST the greatest crime which any one can commit on my estate," said a modern statesman, the late Lord Kimberley, "is to kill an Owl."

He meant that not only was the bonny brown bird with the queer round face a favourite of his, but that he knew the valuable work it did in clearing the land of rats and mice and other pests.

Others beside Lord Kimberley have protested against the killing of Owls, and the number of these wise persons is ever growing. But there are still, even in Great Britain, all too many farmers and gamekeepers who refuse to believe that there is anything but mischief in an Owl. It is a very old belief, and like other popular errors it dies hard.

"It is against my rule to shoot at an Owl," wrote Charles St. John, who had wandered over many an estate in Scotland, gun in hand, but more keen on watching the ways and habits of birds than on shooting them.

He speaks warmly, in his delightful Wild Sports of the Highlands, of the good services with which Owls repay the landowner who allows them to remain and multiply. And he gives an instance in which, the old-fashioned pole-traps (now forbidden by law) having destroyed most of the Owls and hawks in a certain neighbourhood, the rats and mice increased so terribly that the nursery-gardens and farmbuildings were overrun with them, and untold damage was done. At last the pole-traps were removed, the Owls

began to grow numerous again, and in a short time the sharp-toothed invaders were killed off, scared away, or again went about in terror of their lives.

"The number of mice destroyed by a pair of Owls in breeding time," he remarks, "must be enormous." And referring to the onslaught which these birds make on rats, "the prey which they are most adapted for catching," he says, truly enough: "Everybody must be glad to encourage any creature that kills the most disgusting and obnoxious animal which we have in this country."

In fact, the more we know of the good work done by this bird, the more we shall all agree with Lord Lilford, who, when president of the Ornithologists' Union, declared that "the fittest place for the destroyer of an Owl was a lunatic asylum."

But these friendly feelings towards the Owl are comparatively new. As soon as we go back to olden times, we find the bird regarded in a very different way.

It is easy to understand why our forefathers were not fond of the Owl. Very few of them knew of the good done by him in keeping down the pests of field and farm. They only saw in him a very unsociable bird with an extraordinary face, who liked lonely places, who went to sleep when they were getting up, and flew abroad when they were all a-bed.

His weird cry startled them at night. It roused up all the superstitious fears and fancies which stay with ignorance. They connected it with approaching evil, something dreadful about to happen—accident, illness, disaster, death. Any of these things might be foretold by the dolorous cry of an Owl in the night stillness.

Two things helped to make this fear of the Owl not

unnatural: its ghostly silent stealthy flight, and the fact of its being a bird of prey.

The peoples of the ancient world had much to say about the Owl. There are quite a number of allusions in the books of the Old Testament. But it is rather striking to notice that this bird is there mentioned, not as a thing of terror, but as a sign and token of the loneliness and dreariness of the place spoken of.

For example, in the Book of Isaiah we read: "There shall the Great Owl make her nest, and lay and hatch and gather under her shadow." And in a previous verse: "The Owl also shall dwell in it: and He shall stretch out upon it the line of confusion and the stones of emptiness." And in the Book of Jeremiah: "Therefore the wild beasts of the desert shall dwell there . . . and the Owls shall dwell therein."

The ancient Egyptians seem to have venerated the Owl. Occasionally they went so far as to embalm it after death. And it appears fairly frequently in those wonderful sculptures which have lasted so surprisingly all these thousands of years.

Among the Greeks, the Owl had the honour of a place at the side of Pallas Athene—the wise-looking bird attending the goddess of wisdom. That fact came to my remembrance one night, years ago, in Athens, as I climbed the path leading up to the Parthenon, her most famous temple. The white radiance of the full moon was bathing the ruined columns and the great open expanse of the pavement floor. But, from the dark shadows of the Acropolis, came clear and startling the hoot of Athena's bird hiding in some cleft of the rocky wall.

In spite of its being associated with the Maiden Goddess to whom they so often prayed for victory, the Owl does not seem to have been held in much respect by the Greeks. The adjectives usually applied to it are either scornful or



ANCIENT BRONZE DIE.
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ill-natured. But the Athenians did go so far as to stamp the figure of this round-eyed bird on certain of their coins.¹

Among the Romans, its reputation was of the worst kind. If it strayed into a house, it was thought to have designs upon the baby asleep in its cradle, or to presage some coming misfortune to one of the household. "Any

unlucky Owl which blundered into a Roman house was nailed, alive and struggling, to the house-door, to avert the evil that it would have wrought."

In some of the most notable disasters in Roman history, an Owl figures as the harbinger—at least so averred the story-tellers. One of these events was the death of Julius Cæsar under the daggers of the assassins. Another was the fatal battle of Carrhæ, when Crassus and his legions were worsted by the fleet hordes of Parthians, he himself being slain soon after.

The Owl, as messenger of misfortune, figures frequently in the writings of the poets, both ancient and modern. Shakespeare mentions this bird a remarkable number of times, and mostly in connection with impending trouble.

It is a pleasant change to find, in at least one old book, an account of a people who regarded the Owl in a very different way. In the *Travels of Sir John Mandeville*, that quaint gossipy traveller of the fourteenth century

¹ A die for making these coins, and showing clear and sharp-cut the figure and face of an Owl, was found in Egypt in 1904. It probably dates from several centuries before Christ. It is now in the Museum at Athens.

tells how the Great Khan of Tartary was saved from death by the presence of an Owl. He had hidden in a thick wood from the pursuit of his enemies.

"So it happened that as they went searching toward the place where the emperor was, they saw an Owl sitting upon a tree above him. Then said they amongst them, that there was no man, because that they saw that bird there, and so they went their way; and thus escaped the emperor from death. . . And therefore principally above all fowls of the world they worship the Owl; and when they have any of their feathers, they keep them full preciously instead of relics, and bear them upon their heads, and they hold themselves blessed and safe from all perils while that they have them."

There are many of us who, without any belief in the value of Owls' feathers as charms, are yet very fond of the queer brown bird and his strange far-reaching cry.

There is little that is melancholy and very much that is musical in the hoo-hoo hoo-hoo of the Wood Owl when you hear it, as I have heard it, standing listening among the heather, on the outskirts of the New Forest, an hour after sun-down on an April evening, with a thin crescent moon climbing above the slender birches and the dark pines.

Even in the suburbs of our great cities, that "merry note," as Shakespeare calls it in one of his songs, may often be heard. One of our present-day poets, Mr. Noyes, in bidding us "come down to Kew in lilac time," promises us not only the voices of lark and cuckoo, but also

"After dark, the long halloo
And golden-eyed tu-whit tu-whoo
Of owls that ogle London."

No one has, I think, found out the reason why the Owl

is so disliked by other birds. But disliked he certainly is. Many a time has he been noticed, during the daylight hours, being chased from one resting-place to another by a miscellaneous crowd of small birds, many of whom he could slay outright with one stroke of his sharp beak.

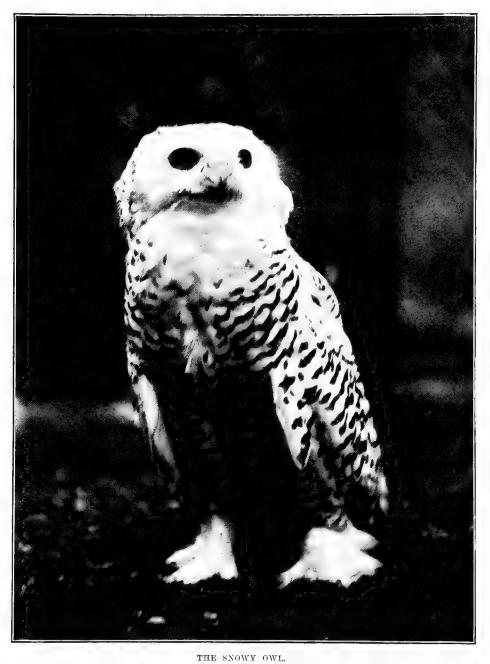
Sometimes he seems too dazed and stupid even to fly away, but sits still with the whole noisy crew chattering around him. He is of the dark, they are of the day. Accordingly, when something disturbs him from his slumbers in barn or belfry or "old oak tree," and, scarcely knowing whither he is going, he flaps out into the blinding glare, it is the signal for all ordinary birds to mob him.

The treatment meted out to him is very much like that which English rustics, a century and a half ago, often thought it fit and proper to offer to any poor wandering foreigner who passed through their village. The fact that he was peculiar in dress and language, and that his ways were not their ways, was felt to be quite sufficient excuse for following him with jeers and threats, and sometimes with a shower of stones.

But the sun sets, and then—the Owl is himself again, and it is the turn of the lesser birds to fear. For many are the perils of the night, and it is not only of four-footed prowlers that the "small fowl," as the old poet Chaucer called them, must needs beware. The sharp claws of the persecuted Owl will strike through feathers as well as fur!

Barry Cornwall, a poet more popular thirty years ago than to-day, has some lively verses about the Owl, in which he notes this very fact:—

> "In the hollow tree, in the grey old tower, The spectral Owl doth dwell; Dull, hated, despised in the sunshine hour, But at dusk he's abroad and well:



Photograph by]

[W. S. Berridge, F Z.S.

Not a bird of the forest e'er mates with him,
All mock him outright by day;
But at night, when the woods grow still and dim,
The boldest will shrink away.
Oh, when the night falls, and roosts the fowl,
Then, then is the reign of the Hornèd Owl."

And the poem closes with a very pretty thought, which is not only good poetry but sound natural history fact; for the Owl, like the raven, is very much attached to his mate and she to him. So the poet bids us

"Mourn not for the Owl and his gloomy plight!

The Owl hath his share of good.

If a pris'ner he be in the broad daylight,

He is lord in the dark greenwood.

Nor lonely the bird nor his ghostly mate;

They are each unto each a pride;

Thrice fonder, perhaps, since a strange dark fate

Hath rent them from all beside!

So when the night falls and dogs do howl,

Sing ho! for the reign of the Hornèd Owl!

We know not alway

Who are Kings of day,

But the King of the night is the bold brown Owl!"

Of what goes on in the woods and out on the moors at night, however, man sees but little, for he himself is usually a-bed then. That is why most of us have seen more of the Owl's troubles than of his triumphs.

I remember once, when I was in the Mediterranean, some one on board the ship disturbed an Owl which, with several other land birds, had settled on the vessel as the big liner ploughed her way towards Naples. It was midafternoon, and the bright sunlight bewildered the poor Owl. It fluttered out of its hiding-place, went over the ship's rail, flying feebly and uncertainly lower and lower,

until to our sorrow it was caught by a wave-top, and its doom was sealed.

The incident happened twenty years ago, but I can still see with pity the picture of utter helplessness which it presented—the beautiful wings opened out upon the dark green of the curling wave and the strange face turned towards us, who could do nothing to save the drowning bird.

A fast-moving railway engine cannot be easy for any heavily flying bird to avoid, unless the flier be very alert. I read, some three or four summers ago, of a case in point.

An early morning express train from Glasgow to the Highlands was speeding along at the rate of nearly sixty miles an hour, when the driver saw a large bird dash itself against the front of the engine. It had evidently been trying to fly across the line, but had under-reckoned the swiftness of the puffing monster that was approaching.

Six miles further the train had to pull up. Then the driver, wondering a good deal, went along to see what had happened. He found a superb specimen of the Barn Owl clinging to the hand-rail in front of the engine. He thought at first that it might escape his reach, but when he took hold of it the creature was quite dead. Not a feather was ruffled or displaced, but the shock had been great enough to kill it.

The railwaymen were so interested in the unusual capture that they had a photograph taken of the driver seated on the front of the engine, with the Owl held upright on his hand.

Lady Brassey, in one of her books of travel, tells how a small Owl came into her charge as a pet. It had been shot by the ship's doctor, and was brought on board the yacht

Sunbeam, with a broken wing. This was deftly set, and it soon grew well. Ere long it became quite tame.

One day when the doctor and the children were playing with the Owl it fell down an opening into the coal bunkers, and, fluttering along, it disappeared behind the boilers. Every one thought it would be scalded to death, and gave up the chase. But five days afterwards the fugitive was found—in the screw funnel! just as the yacht was getting up steam. It was "as black as a coal, as thin as a skeleton, and covered with grease." As may be supposed, it was glad enough to come out and set to work on the food put before it.

I do not know whether this particular Owl was averse to undergoing the good wash which it so badly needed. But some species by no means dislike cold water. One who has kept tame Owls, Mr. Frank Bolles, tells of a pair which "not only drank water freely, but took prolonged baths whenever they had the chance.

"Their tank was one foot and a half long, a foot wide, and ten inches deep. On the arrival of fresh water Fluffy... would test the depth before ducking his head, and then, holding out his wings, he would pump the water under them, flapping his tail and otherwise drenching himself. When thus soaked he became about the size of a plucked pigeon, the colour of a crow, and a dismal object to look upon. His eyes, at such times, would stand out from his drenched and dripping feathers in a most unpleasant way." The surprising thing was the way they kept up this custom of bathing even when the cold was very severe. And it was not because they did not feel it; for their owner tells us that on such occasions they used to sit shivering for hours before their fluff and feathers grew dry.

Talking of feathers reminds me that I have not yet said anything of the wonderful way in which Nature has made an Owl's wings virtually noiseless. As Perseus, in the old Greek fairy-tale, was given the cap of darkness which enabled him to steal upon his victim unobserved and strike before his presence was suspected, so, thanks to the downy fringe with which they have been provided, the wings of the Owl make no rustle or clatter, as, for example, is made by a pigeon. Silently, stealthily, he glides to and fro above the hedgerow or the fieldpath where the mice or the voles are passing, and before they know he is near he has swooped upon them.

Were it not for the muffling of this downy fringe the Owl would many a time go supperless to bed. For fast though the brown wings can travel, the quick-eared mouse would hear their approach and slip into hiding long before the sharp claws could reach down and clutch him.

And now, having said so much about Owls in general, let me say something about Owls in particular.

The typical English Owl, and the largest of the four species which are natives here, is the Brown or TAWNY OWL.

He is a forest bird, and is found alike in the oak-woods of the southern half and the pine-woods of the northern half of our island. His loud *hoo-hoo-hoo!* is heard also in such northerly countries as Sweden, Norway, and Russia, and some parts of Asia.

He is a plucky bird, though in size he is a pigmy compared with some of the giant Owls, and if needful he will resist with much spirit any attempt to meddle with his nest.

One naturalist relates how, as a young man, he was climbing an elm-tree, wanting to inspect a likely-looking

hole in the trunk, when he was suddenly hit in the back by something. "Turning round, I saw a Brown Owl fly back to his post in an adjoining tree, from whence he had made his descent upon me. I continued my climb, and the same attack was delivered with even greater force, a second and a third time." When the climber reached the hole he found out the reason of the bird's onset—"his wife and nestlings were cosily ensconced in the hollow."

Another pair of Brown Owls chose for their dwelling the attic of an unoccupied house, and fiercely discouraged the attempts of anybody to come near them. One day a house cat was missing, and her master, suspecting the Owls, went up to the attic to see if she had been poaching and had got into trouble. His surmise was right. There beside the nest lay the father Owl torn and dead, but the defence had evidently been a valiant one, and the cat lay near, also dead and with one of her eyes picked out.

Gilbert White of Selborne notes in his interesting way, in the compass of a single paragraph, three things about the Brown Owl. He says, "When Brown Owls hoot, their throats swell as big as a hen's egg. I have known an Owl of this species live a full year without any water. . . . When Owls fly they stretch out their legs behind them as a balance to their large heavy heads; for as most nocturnal birds have large eyes and ears they must have large heads to contain them. Large eyes, I presume, are necessary to collect every ray of light, and large concave ears to command the smallest degree of sound."

This is one of the Owls that might be far more common in our English woods and plantations were it not for the enmity of the gamekeepers, who accuse it of preying on the young game-birds. Even if the charge were true, the good done by this and other Owls far outweighs the loss of a stray pheasant chick or two.

In Italy and many other countries, the Brown Owl is used as a decoy by rascally bird-catchers, who fasten him to a perch in an open space, surrounded by bushes on which bird-lime has been thickly smeared. The wild birds, always ready to mob an Owl, come flying round him, and soon find themselves stuck fast to the bushes.

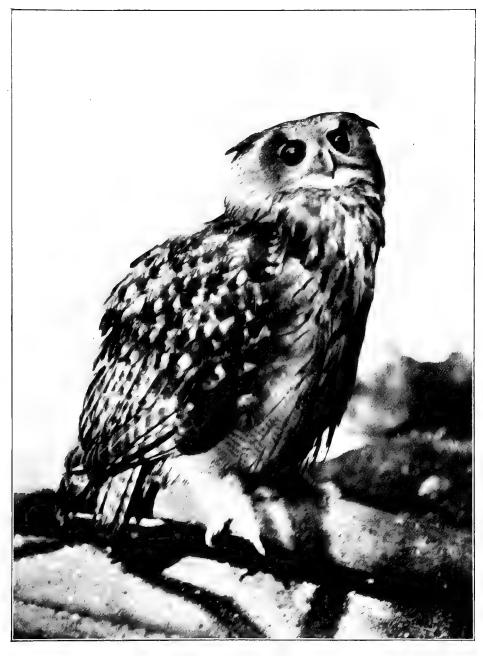
A happier use was made of one by a naturalist in America, who used his pet to attract birds of all sorts through curiosity. "Taking him in a basket to some woods, I displayed him to the robins, pigeons, woodpeckers, vireos, and warblers which chanced to be at hand. . . . A full audience gathered at once. Armed with a field-glass, I had the satisfaction of studying at short range the whole bird population of the neighbourhood."

Owls are not only good parents to their little fluffy nestlings; they are also very faithful and devoted to their mates. Here is one illustration out of many that might be given. Mr. Bosworth Smith relates it from his own experience. It is a sad little story.

"I was tapping with my climbing-stick a certain elmtree in a field, expecting to see a jackdaw hastily scuttle out of its hiding-place. Instead of that a Brown Owl slowly poked its solemn-looking head out of the hole, and remained there looking down upon me with its big mournful dreamy eyes.

"I climbed the tree; it did not stir an inch. I lifted it gently out. Owls are always thin, not much else than feathers; but this one, from its weight, seemed to be feathers and nothing else at all. Its eyes slowly glazed; it turned over on its side, and died in my hand.

"I blew its fluffy feathers apart to see if I could



THE GREAT EAGLE OWL.

unravel the mystery of its death. There was one tiny shot-hole in its skull. On inquiry I found that some few weeks before, when an adjoining withy bed was being 'beaten' for game, a boy, anxious, like others of his kind, to 'kill something,' had fired at a big Brown Owl which had come lumbering out of an ivy-tree, its winter resting-place.

"The bird had quivered as he struck it, but had not fallen to the ground, and, escaping for the time, had evidently been dying, by inches, ever since, in the hollow in which I had found it. Her devoted mate had kept her supplied with mice and rats, several of which, quite recently killed, I found therein, and also stored in the hedge below."

The White or BARN OWL is the Screech-Owl, which figures so prominently both in English poetry and English folk-lore. In the old superstitious days, when ignorance reigned in the villages of our land, and when even to the city-dweller and those who had had some schooling the hours of darkness brought all manner of fears, it is not surprising that the shrill cry of this Owl should have suggested many gruesome fancies.

All the terror of such fancies seems to have crept into one of Shakespeare's magical lines, where he pictures the wicked Lady Macbeth standing listening, at dead of night, while a grim murder is taking place in her castle. She starts at a sound, and exclaims to herself,—

"Hark! Peace! It was the owl that shriek'd, the fatal bellman, Which gives the stern'st good-night."

Perhaps our forefathers ought not to be blamed overmuch for being so ready to shiver and shake at the weird call of the Screech-Owl. For it was a very old tradition that associated this bird with things of dread, and they did but repeat, around the crackling winter fire, stories and fancies which had come down to them from *their* fathers.

Indeed, we find that the ancient Romans disliked and feared the Screech-Owl. There is a passage in a quaint old English translation of Pliny's Natural History which I may quote here. That interesting old writer says, "The Scritche-Owle betokeneth alwaies some heavie newes, and is most execrable [hateful] and accursed. He keepeth ever in the deserts, and loveth not only such unpeopled places, but also those that are horrible hard of accesse. In summer, he is the verie monster of the night, neither crying, nor singing out cleare, but uttering a certaine heavie grone of doleful moning."

In one of his letters, Gilbert White of Selborne, who lived and wrote in the eighteenth century, when rural England was by no means rid of such fears, says of the alarming cry of the Screech-Owl, "I have known a whole village up in arms on such an occasion, imagining the churchyard to be full of goblins and spectres." And he adds, "White Owls often scream horribly as they fly along. From this screaming probably arose the people's imaginary species of Screech-Owl which they superstitiously think attends the windows of dying persons."

The cause of all these fears is a comparatively small bird (without his very abundant feathers he is not much larger than a pigeon). But he is full of spirit, and when he wants to he can hurt. Many an unthinking person who has attempted to seize him has had the sharp claws driven deep into his hand. And as for dogs and other

animal assailants, he has often sent them back whining and half-blinded to their masters.

I have read of one White Owl that was preserved as a pet and given plenty of liberty, and whose owner had to have him killed on account of his habit of viciously flying at strangers. His last offence was attacking a pony. "He dashed at it as it was coming towards the house. Fastening on its nose with his claws, he buffeted the poor beast with his wings to such an extent that it became frantic."

Finally the pony, with a quick toss of the head, flung its tormentor to the ground. The Owl's leg was broken in the fall, but "nothing daunted, the bird returned to the attack, and grasping the pony's nose with his sound foot he struck his sharp beak into the animal's face, and began beating it afresh with his wings. He was at last torn away by main force, and paid the penalty of his spitefulness with his life."

The White Owl gets its name from the pure white of its breast, legs, and the greater part of its face; the back and wings being of a beautiful brown—orange-buff, as it has been termed. Its length is only about thirteen inches.

The usefulness of this little bird of prey is beyond reckoning. It feeds on vermin—rats and mice and voles, but mice chiefly—and does more to keep down those pests than man accomplishes with all his cunning and all his traps. As one naturalist says, "The number of mice which a Barn Owl catches in a single night is truly astonishing. Waterton states that the bird will bring a mouse to its nest every twelve or fifteen minutes. A nest in Avington Park in Hampshire (where the owner protected owls) was found by us to have over forty freshly-

killed field-mice, which must have been caught during the preceding night." 1

The same writer observes, "I have seen two or three of these pretty birds flying about in the park, in the early evening, over the bracken, and playing with each other in the air. Their movements were full of grace and activity, as they sailed over the fern, and gambolled with each other in the most playful manner."

Down from the Arctic wastes, when the grip of the frost tightens on all things, comes the SNOWY OWL, sailing southward in search of the shy wild creatures that are his food.

His white dress and the thickness of it, the way Nature has muffled him in plumage that is absolutely cold-defying, all mark him out as a creature of the Ice-King's realm, and accordingly the first breath of spring wafted over Europe's northern moors and forests scares the white truant back to his native wilderness.

From time to time he visits our island (indeed the outlying isles of Orkney and Shetland see him pretty well every year), but more often than not he would seem to be here against his will—blown over by the strong prevalent winds from the north-east. When he does come, his size and appearance make him a noticeable object. One man who had seen a Snowy Owl on a high piece of moorland in Scotland described him to Mr. St. John as looking "like a milestone."

He haunts the sandhills so common on the east coast of Scotland, hovering over the slopes and striking down

¹ In view of such useful work, it is deplorable to learn what numbers of these valuable friends of the farmer are killed every year. Giving evidence before a Select Committee of the House of Lords in June 1908, Dr. Bowdler Sharpe complained that they were being "destroyed by thousands."

the rabbits that abound there. Perhaps, too, these sanddunes have a pleasant resemblance to his real home in the treeless solitudes of the Far North.

For the Snowy Owl is no forest bird. He belongs to such desolate places as Grinnell Land, Nova Zembla, Franz Josef Land, and the broad belt of dreary solitudes known as the Tundra, which lies between the icy waters of the Arctic seas and the borders of the Siberian pine forests.

When he visits Britain he may find hares and rabbits and game birds which please him best, but at home his staple food is usually furnished by the countless swarms of lemmings which, like most other animals, move southward at the approach of winter. He follows their marches, feasting royally, and if any place he visits seems a favourite halting-place for the lemming armies, there he stays, and there he and his mate make their nest. One writer tells us that "in Alaska, in a good lemming year, Snowy Owls have been seen dotting the country here and there, as they perched on the scattered knolls."

When food is scarce this bold marauder becomes positively audacious. Cases have been known in which a sportsman out grouse-shooting has seen the bird he has shot carried off before his eyes by a Snowy Owl that swooped upon it.

It must be rather a voracious feeder, for Yarrell, the naturalist, records the astonishing fact that one of this species which had been wounded on the island of Balta, in the Shetlands, "disgorged a young rabbit whole; while another, in my possession," he says, "had in its stomach a young sandpiper with its plumage entire."

Nor does it disdain a fish diet. Audubon, the American

¹ He has been seen in counties as far south as Dorsetshire.

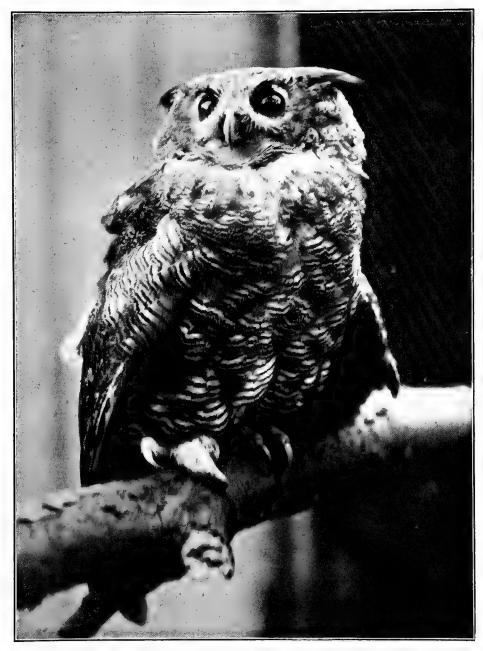
authority on birds, came across proofs of this one day when he was out duck-shooting near Louisville. He found several of them at the falls of the river Ohio. They were lying on the rocks near the 'pot-holes,' so still that they might have been asleep or dead. But all the time they were awake and on the alert, and the instant some unsuspecting fish came near the surface, near enough to reach, a white-feathered leg shot out with amazing swiftness, and the claws, sharp as needles, were struck into the scaly prize.

The Snowy Owl is not only one of the larger Owls,—it is some twenty-two inches in actual length,—but, unlike the two British species which we have been talking about, it is not a night-flier but a bird of daylight. It is sheathed in white feathers from head to foot literally, for even the feet are half hidden in down; and "the large orange eyeballs shine with a lustre as of a living topaz set among the snowy plumage."

There is an amusing story of a sailor who was sent aloft, one night, to carry out some order. He had not been gone up the rigging more than a minute or so when down he came in feverish haste, with unmistakable terror in his face and manner.

"What's the matter?" the mate called out in surprise. "Matter enough," said the man, with chattering teeth, glancing upward. "There's Davy Jones himself sitting on the main-yard!"

It was a Snowy Owl. The bird had settled on the ship, as birds will during their flights across the sea, and had found a resting-place on the great spar. It had evidently gone to sleep there when darkness fell, and, disturbed by the approach of poor Jack, had opened its golden eyes on the intruder, to his intense surprise and dismay.



THE VIRGINIAN EAGLE OWL.

Photograph by]

[W. S. Berridge, F.Z.S.

The EAGLE OWL is a robber, but who will deny that he is a most kingly one? The charge brought against him—that he attacks hares, rabbits, and game-birds like pheasants, partridges, and grouse, and occasionally even fawns—cannot be denied, yet surely it is worth losing a few of these jealously preserved creatures, which are only bred to be shot, for the rare privilege of seeing this superb visitor?

Mr. Bosworth Smith, who made a special study of Owls, and kept several pairs of Eagle Owls in succession in an aviary, when he was a master at Harrow, went so far as to say, "He is the most magnificent, I think, not only of the Owls, but of all birds."

It is only now and then that he comes to Britain. When he does come it is usually to the wild northern end of our island—more often than not to the outlying islands of Orkney and Shetland. And those landowners who care only for the "shooting," and nothing for the natural history, of their estates, no doubt fervently hope that his visits may be "like angel-visits, few and far between."

If, however, he is scarce in this country, he and his family are to be found pretty well all over the world, except where the place would be unsuitable to his ways and wants. You will hear his cry in the dreary flats and forests of Siberia and the sun-baked sands of North Africa, on the banks of great rivers like the Danube and in the islands of the Indian Seas.

In what we call Bible lands the Eagle Owl is, or used to be, common enough. Canon Tristram found it "most abundant about the ruined temples of Egypt, and especially plentiful in the rock tombs of Petra, the ancient 'Edom.' It inhabits ruins and caves all over the Holy Land. We found it in tombs in Carmel, in the robbers' caves near Gennesaret, in the hermit caves above Jericho, among the

desert wadys near Beersheba—in fact, everywhere where man has been and is not."

The same writer goes on to say, "Its cry is a loud, prolonged, and very powerful hoot. I know nothing which more vividly brought to my mind the sense of loneliness and desolation than the re-echoing hoot of two or three of these great Owls, as I stood at midnight among the ruined temples of Baalbek."

A later naturalist, Prince Rudolph of Austria, also testifies to this bird's love of lonely places. "More perhaps even than the eagle, it has suffered from the inroads of civilization, for it demands perfect quiet, and vast wildernesses are its true home."

He gives an interesting account of how, in one of the wilder parts of his own country, he tried to bag an Eagle Owl. Its nest was in a hole in an old willow tree, in a wooded swamp.

"Slowly we neared a little opening," he says, "in the midst of which stood an old rotten willow, and seldom have I seen so remarkable a tree. Its twisted trunk only rose a couple of yards above the water, and was quite branchless and leafless, and also blackened by lightning and split down the middle; while at its upper end was a large hole leading into the hollow stem. This willow served as a fit abode for the gloomy Eagle Owl, the king of its race."

His hunting companion startled the bird out of its retreat by a sharp rap on the tree, but the prince's shot was a failure, and the Owl flew away into the dark depths of the wood. Vexed and chagrined, he sat awhile in his boat, being assured by his companion that when the Eagle Owl is shot at and not fatally wounded it soon returns, for if it can do so it always prefers to get back to the familiar shelter of its own nest.

In this they were disappointed. They then determined to take the nest, and one of the party was ordered to try to get up to it. "Ferencz, who was a particularly clever climber, swung himself from the boat up the stem of the tree with the assistance of the climbing-irons. The upper part of the willow was so broad that he could move quite easily along its slanting surface, and on reaching the hole which served as the entrance to the nest he felt cautiously inside.

"He first carefully pulled out the newly-killed bodies of four moor-hens, which the Owl had probably brought this very day as food for the young. The bodies were quite intact, but curiously enough all the heads were gone. . . . We then called out to him to throw down some of the materials of the nest into a sack, and out came a mass consisting of feathers, twigs, bones of dead creatures, and quantities of maggots and vermin. Finally, he lowered into my boat one by one the four young birds, which were rather small and covered with light grey down."

The handling of an Owl's nest is not a pleasant task, especially an old nest, with its great accumulation of bones and fragments, the refuse of many meals.

Sometimes the "nest" hardly deserves the name, being merely a hollow in the ground with a little rampart of bones and pickings and cast-up pellets. The eggs are usually two or three in number.

And the builders of the nest, what are they like, in size and colour? Well, the general hue of an Eagle Owl's plumage is brown, but the shade seems to vary in lightness in different countries. The black markings are very handsome. The ear-tufts measure rather over three inches. The length of the bird is about twenty-six inches.

He is a splendid fellow, and his mate is even bolder and

bigger than he. In fact, Mr. Bosworth Smith declares that she outshines him altogether: "She takes the lead throughout. Her talons have a terrible grip and strength. She has been known to kill a dog or a sheep, and to carry off a full-grown hare without much apparent trouble.

"When she is angered by the unceremonious approach of a visitor [to her cage] she lowers her head almost to the ground, moves it slowly from side to side in a long sweep, snaps loudly with her bill, quivers from head to foot with half-suppressed rage, and raises her wings in a vast circle above her body, each particular feather standing on end, erect and distinct, her eyes flashing fiercely the while, and turning from a yellow to a fiery red."

Some of you will one day come across a fine passage in Tennyson's "Idylls of the King," in which he pictures two riders gazing from a hilltop in the midst of a gloomy forest, at a distant valley where a little reedy lake,

"Round as the red eye of an Eagle-Owl, Under the half-dead sunset glared."

That splendid eye seems stronger than that of other night-flying birds. For though he is really a nocturnal hunter, he does not seem at all blinded or bewildered if he is forced to fly out into the sunshine by some one who has surprised him asleep.

A number of Eagle Owls were once kept by the Duke of Norfolk at his Sussex home, Arundel Castle. The whole of the ancient keep was enclosed with netting, and the historic building, with its clump of shady trees and bushes, became their home. It was a most enviable existence, for the conditions were just what these birds like, and all foes were kept at a distance.

So they might have been seen perched in niche and window, dignified as a king and solemn as a judge. In-

deed, one of them came to bear the name of Lord Eldon, the Lord Chancellor. For, the story goes, "One of the daughters of that distinguished lawyer, entering the keep, one day, and not knowing what was there, caught sight of the venerable bird sitting in state solemnly blinking its eyes, and exclaimed, 'Dear me, how like papa!'" And the name stuck.

THE ROBIN.

F English children were to vote for their favourite bird, out of all the birds that visit our woods and gardens, our moorlands and meadows, who can doubt that Robin Redbreast would receive by far the largest number of votes?

Generation after generation of children have regarded him as first favourite. For hundreds of years he has been one of the few birds it has been reckoned unlucky to kill, and shameful even to drive away. He figures in early legends, and old ballads, and the folk-lore which is dying out so fast in the cottages of the country-side to-day.

It is said, for example, that the Robin was one of the birds that flew grieving about the cross of Jesus Christ on Calvary. The crossbill was another. Together they strove to draw out the nails that pierced His hands and feet. In vainly trying to do this, the crossbill's beak was bent and twisted, and the blood of our Saviour stained red the breast of the Robin, which had been white before.

It is a beautiful fancy, and it had a good deal to do with making the people of olden times spare this bird when less favoured feathered fliers were killed or captured.

But there were other loving and friendly deeds that were attributed to the Robin, which helped to make him popular. One of these was, that when a pair of Robins chanced to find any dead person lying in the fields or forests, they did their best to give him burial by fetching leaves and strewing them over his face. The poet Michael

Drayton, in a fable-poem written just after King James I. came to the throne, refers to this belief—

"Covering with moss the dead's uncloséd eye, The little redbreast teacheth charitie."

But probably even older than Michael Drayton is the ballad of "The Children in the Wood," that piteous tale in which the only kind act done for the two orphan babes left alone in the forest was that which was done by the Robin, when they perished of hunger and fear and sorrow—

"Their prettye lippes with blackberries
Were all besmear'd and dyed;
And when they saw the darksome night
They sat them downe and cryed.

Thus wandered these poor innocents,

Till death did end their grief;
In one another's armes they dyed,

As wanting due relief;
No burial this pretty pair

Of any man receives,

Till Robin Redbreast piously

Did cover them with leaves."

Perhaps that touching old ballad is not known to boys and girls so well as it used to be, though I remember learning it when I was a very little boy. But it was learned and loved, century after century, in town and country, long enough and well enough to make children, when they grew up, think of every Robin with a very friendly feeling.

The "pious act" of the Robin in the ballad may possibly have been suggested by a prudent trick which the hen bird has of covering up the precious eggs in her nest, before she leaves them. She and her mate are also said to screen off the nest sometimes with dry leaves, if it seems to them too exposed. Inasmuch as the Robin is a very early builder—February is not an uncommon time, and one fully finished nest was once found in mid-January—the habit would seem to show a good deal of common sense. Later builders can rely on the young leaves to help conceal their handiwork.

The eggs, as some of you know, are white spotted or freckled with bright red. They are usually about half a dozen in number, and are laid as early as March, but two and even three broods are reared during the year. The nest is made of dead leaves and moss, with a lining of hair and feathers. The most common situation for it is "in holes in banks, walls or hollow trees, or amongst ivy."

But if that is the rule, there are numberless exceptions. Indeed, page after page might be filled with anecdotes of the singular places which Robins, from time to time, have chosen for home and nursery. Here are a few cases which may be new to you.

In the parish church of Hampton-in-Arden, in Warwickshire, a pair of Robins built their nest, two years running, on the big Bible as it lay on the reading-desk. The kindly vicar ordered the nest to be left undisturbed and brought another Bible, from which he read the lessons.

Even bolder were two other Robins who were so pleased with the weekday quiet of a certain chapel at Thame in Oxfordshire, that they decided upon building there. When Sunday came round, the owners of one of the pews found to their amazement a half-finished nest, lying on the book-ledge between two books. Very considerately the family decided to occupy another pew until nesting and nursery time should be over. By the

following Sunday the nest was finished, and by the next the eggs were laid, and the brave little mother-bird sat on the nest all through service-time. The noises around her—the organ, the singing, the preaching, the coming and going of the congregation—may have scared her and made her uneasy, but she stayed. And at last, four baby Robins were hatched, and fed, and reared on the bookledge of that chapel pew.

Two other curious places chosen for nest-building were the centre of a large cabbage growing in a garden, and the head of a stuffed shark in a taxidermist's work-room.

In a disused stable behind a house at Dundrum, in Ireland, there hung a human skull, which had been left there by one of the family, a doctor, who had gone abroad. The skull hung upside down against the wall, and upon it a Robin had built her nest. Here she hatched out her family, despite what to her must have been the tiresome passing to and fro of many persons, including three children and the gardener who kept his tools in the stable.

That took place only a short time ago, but here is another case which carries our thoughts back to the great sea-fight of Trafalgar over a century ago. The flagship of Lord Nelson on that ever-to-be-remembered day was, as all my readers know, the old *Victory*, which now lies moored in Portsmouth Harbour. In the great battle she was so badly knocked about that it was a wonder she ever reached England in safety. Her rigging was cut to shreds, her masts shattered, and her oaken sides pierced through and through

"In the crash of the cannonade and the desperate strife."

A sea-going ship she would never be again, it was quite clear, and a good deal of repairing and re-fitting was needful before she could be trusted to keep afloat even within the harbour waters.

One of her masts, or a large piece of it, came into the hands of the Duke of Clarence, afterwards King William IV. He ordered it to be set up in a little stone arbour, in the beautiful grounds of Bushey House. The mast could have told a thrilling story. A shot from one of the Frenchmen's guns had carved a great hole in it; and it was in this hole that a Robin and his mate decided to build their nest. The nest was made, the eggs were laid, and the little ones were fed until they were able to fly.

Robins are not sociable birds, so far as their own feathered comrades are concerned. They are not to be seen in flocks like linnets or fieldfares. But towards man they seem to have a friendly feeling, which leads them deliberately to seek his company instead of flying away, scared and suspicious, like so many other small birds. The ploughman, the woodcutter, the gravedigger, the gardener, all know the Redbreast and his pretty way of companioning them and watching their every movement. The poet Tennyson had noticed this habit. Do you remember the line in which he describes it?—

"As careful robins eye the delver's toil."

It is the delver, or digger, whom the Robin especially loves to attend. For the spade does him service in turning up the soil, and bringing to light fresh earthworms on which he loves to feast. Indeed, he is a regular little gourmand; he is not content with worms of small size, but will tackle large ones which must seem like big snakes to so small a bird. If he cannot swallow the worm as it is, he "tosses it about with his beak, bangs it against

the ground, flings it over his head, jumps on it, and when he has thus mashed it into a pulp, pulls it to bits and devours it piecemeal."

Besides such natural food, the Robin has a number of "acquired tastes." Fats of different sorts have a positive charm for him. He will dare much to get such dainties. "I have known them to visit labourers at breakfast-time," says one naturalist, "to eat butter from their hands, and even enter a lantern to feast on the candle. One, as I have been assured, was in the constant habit of entering a house in a tan-yard in Belfast by the window, that it might feed upon tallow, when the men were using this substance in the preparation of hides." And he adds, that in winter-time, especially if it be cold weather, these birds seem to have a craving for cream; while, on more than one occasion, they have been known to fly in at an outbuilding used as a washhouse and eat the soap.

Other strange things tempt them too. One friendly little Robin, who made himself quite at home at a certain country house, often helped himself to whatever dishes came to table. "On Christmas Day he made a good meal of plum-pudding, which he seemed to enjoy, picking at it vigorously."

He appears to have been more moderate than another I have read of, who took a great fancy to bread and butter smeared with honey or sugar. He came back, one day, to the friend who had treated him, bringing three other Robins, and the four little gluttons made such a hearty meal of this new food that they could not fly home. They were lifted up and put into a quiet corner till the morning. They were evidently neither sorry for their excess nor ashamed of it, but ent and told other Robins. For more and more came to the house, till between

twenty and thirty used to wait for the sugary fare to be served to them.

I have said that the Robin is sociable with human beings, but not with his own clan, strangely enough. Indeed, it must roundly be confessed, even by those who love him, that he is a very quarrelsome, resentful little fellow.

He fights with his rivals. He fights even with his children when they are grown up. The same place cannot contain them both. "A fight between Robins," says Mr. John Lea, "has been known to last a whole day, one of the birds eventually being killed." Richard Jefferies, in one of his outdoor essays, declares that most of these fights take place in the early morning—like the duels which were fought by gentlemen a hundred years ago.

Thompson, the author of *Notes of a Naturalist*, was an eye-witness of a battle royal between two Robins, which took place at Margate in one of the busiest parts of the town (it was many years ago, when Margate was a much smaller place than it is now). The two combatants were in such a blind rage with each other, that they paid no attention to the passers-by whom they brushed against. Now rising into the air, now sinking into the roadway, they moved further and further seaward till they finally fell into the harbour, whence they were rescued still fiercely clutching each other.

The song of the Robin is not very loud and strong, but it is very sweet, and it is one of the few bird-songs that in this country we may hear pretty well all the year round.

THE LARK.

ATURALISTS distinguish the Larks by the very long claw of the hind toe, and the length of certain of the wing-feathers. But to most people, and especially to boys and girls, a far more interesting fact is that they belong to a musical family.

There are many of them—something like seventy—with separate names, and although one is found in North America and another in South America, the Larks may be said to be birds of the eastern hemisphere. Europe in particular is rich in Larks. Our island has two of the best, and we should be thankful for that. One of these is the SKYLARK.

A truly wonderful singer is he. There are many people who rate his music higher than that of the nightingale. It were good to believe that; for certainly for every one person who has listened to the "bird of night," thousands have heard the Skylark. One likes to remember, too, that whereas the nightingale's music is set off to advantage by the stillness of the woods and fields (for night seems to love to come

"And call deep silence for his songs,"

so that no jarring sounds may interfere), the Skylark springs into the air when the noises of the day are all about him, and compels us by his exquisite minstrelsy to forget all these and listen to him, till he has soared veritably out of sight and hearing.

And what melody it is! Really there is nothing quite

like it in all the world of Nature. The very heart of happiness is in it. The Lark is of the morning; he belongs to the freshest, brightest hours. He suggests all that is gladsome; the very way in which he rises from the dewdrenched earth and soars up into the clearest air, till the light and warmth that have not yet reached the daisies round his nest are about him, is a picture of the way a brave glad hopefulness can rise above the clouds of care and trouble, and live in the light of the sun. The Lark must have helped thousands of weary folk. Heavy indeed must be the heart that can listen to that wonderful music without feeling part of its burden rolled away.

The poets especially have loved the Skylark. Perhaps, because he is himself so true a singer. No copyist is he. He sings because he must, because he is full of gladness—just as a little child sings—not because he has picked up a song somewhere and is trying it over.

Two modern poets, who died within a few years of each other, have put this thought into words. Robert Browning in one of his earliest long poems, "Paracelsus," speaks of how

"The lark Soars up and up, shivering for very joy,"

and Tennyson in his story-poem, "The Gardener's Daughter," describes in a single line the way in which the bird's rapture almost hinders the flow of the music—

"The lark could scarce get out his notes for joy,"

I have seen it stated that it is easy for any one familiar with the Skylark's song to tell for certain, without even looking at the singer, whether he is ascending or descending or is stationary in the air, merely by listening to the way he is singing. If he is soaring, his song has an eager impatience in it, as if he was 'climbing' fast but not fast enough. If stationary, the song slows down, with little breaks in the chain of sound. And if he is descending, the music seems to be gradually sinking and lessening too.

The notes and the wing-beats often, though not always, go together. And this reminds me, how wonderful it is for so small a bird to soar so strongly and to sing so loudly. You boys and girls know how quickly you get out of breath if you keep on shouting while you are running; and if you do this while you are running uphill, you soon have to stop and rest.

Yet that is what the Skylark does, and does with ease. He does not even fling himself into the air from a high mountain crag like the eagle, but he springs from the turf of the meadow or the plough-furrow, and quick beatings of those little brown wings carry him up to heights whither our dazzled eyes cannot follow him. And from that immense distance his music comes down to us—we can hear him singing while he is still beyond our sight. It is marvellous.

Nor this alone. The Skylark, as a rule, does not choose the easy way of soaring—by sailing in circles each higher than the last (spirals, as they are called), as even the mighty eagles are content to do. But up and up he goes, sometimes a little slantingly, but at least as straight as a hodman climbing a ladder.

I have said that we associate the Skylark with the bright fresh hours at the beginning of the day. Milton, in one of his shorter poems, mentions among the joys of country life that of hearing the Lark "startle the dull night" with his song "till the dappled dawn doth rise." It may be that occasionally his music is heard before day-

break, but that is very unusual. He and the sun awake together.

During the burning heat of a summer's noontide you will not hear him, but as the hours pass on he will be up and singing again. I have read that he seldom sings late in the day. This surely is an error. Many of us must have watched him "going up for the last time," and seen him descend and again go up—while the sun's bright rim was sinking below the horizon.

It was to the evening song of one of these birds, heard near Leghorn, in Italy, by the poet Shelley, that we owe one of the most musical poems in the English language. It is called "An Ode to a Skylark," and I daresay some of you know it already.

A mounting Lark is a fine-weather sign. For he knows well that to soar, or even to keep hovering high in air, when rain may make his wings heavy, would be to undertake a very tiring effort. But after rain,—as soon as the shower or the storm has really ceased,—who so eager as the Skylark to get upon the wing once more?

When chased by a falcon, whose keen eye and bold flight make it so hard to outwit, a Skylark, if he is already high in air, will often try to out-soar his enemy. Fear then lends special strength to his wings, and he will rise a thousand feet and more above the earth. Then, bearing away to left or right, he may succeed in giving the falcon the slip.

But if they manœuvre, like two ships of war, and the Lark finds himself undermost, he has the power of closing his wings and "dropping like a stone," even from a height of eight hundred feet, and slipping into some bush or thicket where, for the time being, he is safe.

¹ Mr. Charles Dixon says "two thousand feet and more into the sky."

This wonderful power of flight serves him and his tribe well, when the great autumn migration takes place, about which I must say something here.

A great many Skylarks live in England all the year round. But at the close of summer—during October and November, in particular—it is estimated that "millions of these birds" pour across the North Sea into our eastern counties. Large numbers, not content with having travelled thus far, move on, seeking still more southerly winter feeding-grounds. Day after day the great cloud of birds passes over. All through the night, without intermission, the winged host sweeps on—from Russian plains and Jutland sand-dunes and Norwegian fjelds, led by some strange instinct which drives them westward from their summer homes.

The 'watchers of the skies' who tend our East Coast lighthouses report that more Larks go by than any other bird. Another place which birds pass over in immense numbers is Heligoland, an island off the coast of Germany. Here, it is recorded, no less than fifteen thousand Larks were once caught in a single night.

They are captured for food. It is said that the enormous number of four hundred thousand Larks is supplied annually to the London markets. Brighton comes second in its demand. Just think of the awful slaughter of beautiful singers which those figures represent! Let us hope that the day is not far distant when it will be thought as horrid a custom to kill a Skylark for the sake of the tiny bit of meat it yields as it would be to feast, like the old Roman gourmands, on nightingales' tongues. When we know that the song from the throat of a single Lark can fill a whole landscape with joyfullest music, it is nothing but an act of

barbarism to kill such a singer to furnish a savoury dish for the table.

The Lark has an enemy even worse than the bird-catcher with his nets and his horsehair nooses, and that is frost. A prolonged and really severe frost sweeps off these birds by myriads. For crowds of Larks come to our islands from the Continent to escape the clutch of winter—or rather, to escape its worst rigours. One writer gives an example: "In the winter of 1870, during the siege of Paris, the frost extended even to Devonshire, and there the Larks, which had all gone west, were to be seen dead in thousands. They came into the streets of towns, and invaded the gardens, where they are every scrap of leaf off the winter cabbages, leaving nothing but the fibres of the leaves." If a bird's daily food and drink are spared to him it is wonderful how much cold he can endure; but shut these off, or let them be scanty and hard to find, and he soon flags and dies. Famine and frost are terrible allies, and irresistibly strong to destroy.

The Lark's playground is the boundless sky—"the blue dome of air." Once mounted up, it matters little, one would think, whether the plains of Germany or the uplands of England lie beneath him. But despite his marvellous powers of soaring, he is no dweller in the air like the swallow tribe: nor does he choose a high tree for his nest. "The Skylark is a thorough ground bird," says Mr. Dixon, "living for the most part upon the ground, rearing its young upon the ground, and drawing almost its entire food from it."

So that it does matter very considerably what kind of country is underneath him when he is pouring out his song, a thousand feet in air. He is careful in his choice of a nesting-place. It must be a region of open spaces—

meadow or moorland, heath or fell. He loves a breezy table-land. The forest has no charm for him. A Scottish poet addresses him, "Bird of the wilderness!" and it is in the wilderness that you will find the majority of his tribe. Another and more recent poet, Jean Ingelow, in her sad but beautiful poem, "Divided," paints one such place for us in a couple of lilting verses:—

"An empty sky, a world of heather,
Purple of foxglove, yellow of broom,
We two among them walking together
Pressing out honey and treading perfume.

Crowds of bees are busy with clover, Crowds of grasshoppers skip at our feet, Crowds of larks at their matins hang over, Thanking the Lord for a life so sweet."

Happily for city-dwellers, it is not necessary to go many miles out to hear the thanksgiving of the Skylark. For on the very edge of the town, within sound of those who are intruding on his green kingdom—disregarding the clink of the bricklayer's trowel and the tapping of the carpenter's hammer—you may hear the Lark going up, unscared and undeterred.

Two safeguards can happily be set against the horrid slaughter of Larks—one is that there are two broods in a year, with four or five nestlings in each, and the other is that the nest itself is peculiarly difficult to find. Everybody admits this second fact. As an example, I remember once in Devonshire, at Seaton, years ago, a friend pointed out to me a Skylark's nest which he had come upon accidentally in a grassy trench on the cliffs. I looked at it with interest, and hurried on down to the shore. When I returned, in a very short time, I hunted for it in vain,

though I had made sure I could walk straight to the exact spot.

A beautiful little nest it is, that of the Skylark, cupshaped and woven of fine grass, with perhaps a rough outside suited to its surroundings.

There are hundreds of places in England where a Lark may constantly be heard singing, there are others where not one will be seen or heard. I read, last year, a complaint from a landowner in Scotland, who said that though he spent several days tramping about his estate—he owned a thousand acres in Forfarshire—he could neither hear nor see a single Lark, nor did he chance upon the nest of one. Yet the country was of a very varied kind—pasture, rough heather, mowing-grass, turnip-field, and moorland.

Ireland, too, has at least one place where no one expects to hear the song of the Lark. This is Glendalough, in County Wicklow. There is a legend which suggests the cause. St. Kevin, when the Seven Churches were being built in this valley, found that the wearied masons could not get rest enough owing to these early rising songsters. He therefore imposed silence upon the birds. And the valley, even to-day, is supposed to be shunned by the offended birds as the result of this interdict. Ireland's poet, Thomas Moore, refers to it:—

"By that lake whose gloomy shore Skylark never warbles o'er."

But there are folks enough to-day in that country who appreciate the song of the Lark, though it is chiefly as a cage-bird. A poor chandler of Belfast once declined the offer of a cow for his favourite Skylark. From one to three sovereigns has at times been paid in Dublin for one of these birds. Lancashire operatives, too, are said to have quite a mania for these singing pets, which they take out into

the fields on Saturdays and Sundays, and pit one against another in trials of song.

But this habit of caging the Lark for its song is common from Connemara to Japan. The Chinese, in particular, are partial to it. The author of *Life and Sport in China* tells how the natives of Peking make a practice of taking out tame Larks to sing to them on holiday afternoons. The Chinaman carries his bird's cage on the hand bent back and upraised to the shoulder, very much as a German waiter carries dishes. Having reached some pleasant spot, he puts the cage on the ground, retires to a little distance, and whistles to the bird. The Lark speedily responds, and a group of pig-tailed listeners sit gravely enjoying the music.

If the Skylark is a bird of the open country, his cousins the TREE PIPIT and the WOOD LARK prefer the leafy woodlands, at all events while courting and nesting are going on. The former is only a summer visitor, arriving here about the middle of April. Like many another migrant he loves to come back, year after year, to the same neighbourhood, and often to the same tree.

A trick which the Tree Pipit has may help you to distinguish it from other similar songsters. This is a habit of "soaring into the air from a tree-top, singing as it goes, and after flying for some distance returning to its starting-place." The song is very melodious—"a rapid succession of clear loud notes, followed, towards the close of its flight, by a prolonged and plaintive double note."

In spite of its name, the Tree Pipit nests on the ground. The Wood Lark is a singer who has been praised by some naturalists even above the Skylark, though his song is less loud and strong. In many parts of our island his voice is but rarely heard, but in other parts he can hardly

be called rare. One observer stated, only a year or two ago, that along the skirts of Dartmoor he knew of more Wood Larks than Skylarks. But in the northern counties few are seen.

One more member of the Lark family must be mentioned, and that is the SHORE LARK. He is a northern bird, who visits this country in autumn and winter. Seeds in the colder months and insects in the summer-time are his food. He is not the favourite of the poets, like his cousin the Skylark; but in one of Robert Browning's poems we find a pretty reference to this bird:—

"Listening the while, where on the heap of stones The white breast of the sea-lark twitters sweet."

Fifty years ago, it would seem, he was regarded as belonging to North America, but we know now that the Shore Larks that visit us have come from places far nearer than that—for many a forest border along the north of Europe and Asia sends them hither when the time for travelling comes.

THE TITMICE.

THEY are the little acrobats of the bird world. Not content with flying, and hopping, and running up the bark of a tree and along its branches, as swiftly and joyfully as a squirrel, the Titmice have a clever knack of twisting and turning and hanging head downwards from some slender, bending spray, which is quite charming to see.

It is not all for fun. They are very busy practical little people, with very considerable appetites. As often as not, therefore, you will find that they have a purpose in all these nimble gymnastics.

Richard Jefferies, in one of his intimate chapters on country life, refers to these tricks and tumblings. One day in late March, he tells us, "while watching the approach of a snowstorm, I noticed that a tall birch tree—whose long slender branches showed distinctly against the dark cloud—seemed to have fruit hanging at the ends of several of the boughs. On going near I counted six tomtits, as busy as they could be, pendent from as many tiny drooping boughs, as if at the end of a string, and swinging to and fro as the rude blast struck the tree."

As he watched, "the six in a few minutes increased to eight, then to nine, then to twelve, and at last there were fourteen together, all dependent (hanging) from the very tiniest of the drooping boughs, all swinging to and fro as the snowflakes came silently floating by, and all chuckling and calling to each other. The ruder the blast and the

more they swung—heads downwards—the merrier they seemed, busily picking away at the young buds. Some of them remained in the tree for more than an hour."

As a rule, it is the tiny insects in the buds that they are after, rather than the buds themselves. And for searching out these, whether hidden in leaf-bud or blossom or bark of tree, the Tit's short, firm, strong beak is a merciless weapon. Indeed, how serviceable it is no one can know who has not watched its owner hard at work digging out some almost invisible grub from a chink or crevice.

Even more remarkable is the eyesight of this active little bird, which can be adapted alike to see a distant object and to magnify another which may be "under its very nose."

When its food is a seed with a hard outside, the beak comes into play like a pickaxe on a piece of hard ground. It does not crush it, but its sharp point, striking it repeatedly, tears off the outside soon enough. A serious charge against the Titmouse is that he uses that beak of his in murderous assaults on other birds—young or sickly ones. He will often kill them with sharp pecks on the head, and then, cannibal-like, feast on them.

After that, it may seem to my readers a small offence to accuse him of attacking bee-hives. He and his comrades sometimes swoop down on the hive, slaying the busy inmates at the very gates of their citadel, just like moss troopers of old surprising some Border castle.

One of the larger members of this numerous clan is among the boldest enemies of the owl. Let the bird of wisdom only show his queer round face in daylight, and the little pugnacious fellow will rush at him furiously, till his noisy cries bring other day-birds fluttering round, and the owl is mobbed.

Except the Long-tailed Tit, every British species of Tit builds its nest in holes in trees. Usually a hole is chosen that needs no preparation, but the bird's strong beak finds no difficulty in widening or deepening the hollow, should that be needful.

As most of you know, the Tits in a garden can easily be persuaded to make use of nesting-boxes fixed up in trees. A cocoanut with a round hole in the side, and all the inside scooped out, or a box of a similar size and with a round opening—that is the kind of house they seem to prefer.

But the number and variety of strange places in which Titmice have been found nesting can hardly be told. In this respect they are like the robins. At Ulverston, the head of a mop that had been left leaning against the wall, in the back-yard of a lodge, was used; the owner was careful not to disturb the tiny builders, and in due course four little chirping Tits filled the oddly-placed nest.

At Buxted, in Sussex, two letter-boxes (fortunately belonging to the house of a bird-lover) were occupied year after year by Blue Tits. Says the owner, Mr. A. L. Hussey: "The nest is curiously large for so small a bird. First there is a foundation, about two and a half inches thick, of brush-wood, quite filling the square box, then comes a layer of moss, and lastly a soft and rounded bed made of donkey's hair, feathers, and rabbit's down."

Other queer places in which a Tit's nest has been found include the spout of a rain-water pipe, the weathercock on a tall spire, the hat of a scarecrow, a bee-hive (with the bees in it), a disused pump, a large flower-pot, a slender-

necked earthenware water-bottle left on a rockery, and a human skull in a garden.

The Titmice are a far-spread family. You will not find them in South America, nor yet in Australia, but Europe, Asia, Africa, and North America offer them a pretty wide choice of homes.

The British Isles know six species: the Great Tit, the Cole Tit, the Marsh Tit, the Blue Tit, the Crested Tit, and the Long-tailed Tit—a charming group of cousins, each pretty in his own way.

Of these certainly the fourth, the Blue-cap, as he is sometimes called, is the most commonly met with in England. He loves the orchard, and in the early days of spring especially, before the leaves have thickened on the boughs, he and his fellows may be seen flitting from tree to tree, and going through all manner of nimble acrobatic feats as they search every likely place for the grubs and insects which are the tree's worst enemies.

It is a habit with the Blue-caps, as with some of their cousins, to hunt for food in company. A flock of them sets forth like a search-party. They ransack a tree or group of trees, together, and as soon as a store of good things is chanced upon, the finder pipes a little call-note. Then the whole party gather round him and forthwith fall to feasting. They find this method much more satisfactory than going out singly to search, "every one for himself."

That the Tits make raids upon the fruit blossom and the fruit is only too true. But to destroy them on that account is both unjust and unwise. One bird-lover, the Rev. M. C. H. Bird, who has suffered from their visits, writes thus in their defence: "I can speak feelingly upon the question of 'Tits and fruit,' the Great and Blue Tits,

between them, having spoilt this year a large number of lovely Irish peach apples, from which nothing for long at a time could frighten them away."

But, he adds, the small amount of harm which Tits do is all noticed "because they attack our carefully watched ripening fruit and a few garden seeds." Whereas the great good they do passes too often unobserved because the insects on which they prey are so extremely tiny. It is the insect-infested blossom and fruit that attract the busy little birds. "Titmice, to the best of my belief," he concludes, "never play havoc with sound fruit."

In Germany they have such a good opinion of the usefulness of this bird and his cousins that in a new Act of Parliament which has been framed for the better protection of birds the Titmouse is expressly mentioned as one of three kinds of birds which are to be protected all the year round.

Like the robin, and like his own cousin the Great Tit, the Blue-cap is a most determined little fighter. I do not know whether the name once given him by country boys—"Billy Biter"—has died out, but it arose from the frequency with which the mischievous village urchin got his fingers nipped by the parent bird when they reached up to rob the nest. The loud hissing or spitting noise made by this bird when nest or eggs are threatened is enough to daunt any but the hardened stealer.

The Blue Tit has a little song, but it is very slight, and only heard by those who are on the watch for such sounds in lane and wood.

The Great Tit is the largest of the clan, so far as the British Isles are concerned, and, like his blue-headed cousin, he has a habit of nesting in odd places. There are, or used to be, at the South Kensington Museum, several

specimens of such nests, arranged just as they were found. In Spain, the Great Tit is called by the boys Santa Cruz (Holy Cross), on account of the black throat and the breast stripe, which together form roughly a sort of cross.

Perhaps the most fairy-like member of this dainty family is the Long-tailed Tit. With his pink and white and black plumage, and his funny little round head, with its tiny beak just showing out of the downy white feathers, he is altogether a charming little bird. And the nest—a masterpiece of delicate work in moss and wool and lichen, with the softest of feather linings—is worthy of its builder.

It is not poked away in the hole of a tree, like that of the Blue-cap, but most often is properly built in the middle of a bush in some wood or plantation. The number of eggs is usually from six to eleven, and as the babies have very long tails in proportion to their bodies, it is a puzzle how the whole family manages to find room in the cosy little home.

When at last the wee grey, white, and brown nestlings are old enough to be allowed outside the nest, they perch all together on some handy branch, with faces all turned towards the morning sun. At nightfall they "close ranks" and sit very close together to keep themselves warm. If the night is cold there is a good deal of shuffling and jostling for the snug inside places.

Even "grown-up" Titmice are chilly folk in winter,

Even "grown-up" Titmice are chilly folk in winter, and crowd together, sometimes huddled two or three deep, when the long hours of darkness begin.

Little need be said here about the Cole or Coal Tit which is commoner among the pine-woods of Scotland than in England, or the Marsh Tit which is not in any especial degree a marsh-loving bird. That name might, however, well be given to the rare Bearded Tit¹ which loves the waving reeds and the swampy ground, and cannot live away from them.

There has been so much draining of wet land in this island of ours, in modern times, that the haunts of the Bearded Tit are now few indeed. It was getting rare even in Charles Kingsley's day. Do you remember how he refers to it in his *Prose Idylls*? He saw in the presence of this little bird in eastern England a sign and trace of the connection that once existed between this country and the Continent from which the Bearded Tit's ancestors found their way.

"His central home," says Kingsley, "is in the marshes of Russia and Prussia; his food the molluscs which swarm among the reed-beds where he builds; and feeding on these from reed-bed to reed-bed, all across what is now the German Ocean, has come the beautiful little bird with long tail, orange tawny plumage, and black moustache, which might have been seen forty [now eighty] years ago in hundreds on every reed-rond in the Fen."

One other Titmouse must be mentioned before I close this chapter. This is the Crested Tit, who is seen but little in these islands, except in the forests which lie along some of the rivers in the Scottish Highlands. Here he is fond of the pines, but on the Continent you will find his nest in oak trees, and in the north of Spain in the cork woods.

He is a pretty little fellow, but his crest of black feathers tipped with white can hardly compare with the Sultan Titmouse of Malaya and India, who rejoices in a crest of long yellow feathers.

¹ Strictly speaking, the Bearded Tit is not now considered one of the Titmice, but he is interesting enough to have a place in this chapter.

THE PEACOCK.

E is the most splendid of all birds. His name has passed into a proverb for proud beauty. Where will you match him for glory of plumage, for dignity of mien?

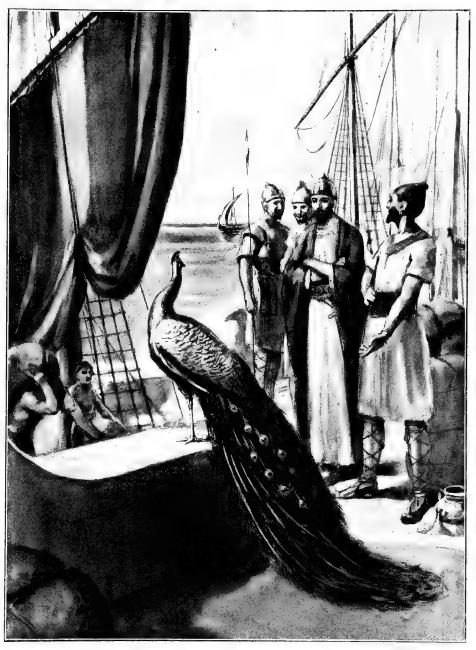
Long centuries ago, man found him in the hot forests of Asia, and said, Lo, here in truth is a fowl that is worthy to sun itself in kings' gardens! And so the Peacock was taken in cunning snares, and carried away to be the wonder and delight of monarchs and courtiers, far from the wild jungles which were the only home and playground he had known.

When the many-oared galleys of Hiram and Solomon came racing home across the Indian Ocean with rich freights of gold and ivory, a snug corner of the ship would often hold half-a-dozen or more of these royal birds, in cage or pen. They found ready purchasers, and we need not doubt that in the palace courts of the Wise King himself, who was interested in all fair living things—

"Over the shining ravements Peacocks drew The splendours of their trains."

The Greeks, too, must have known of this superb Indian fowl at a very early date. For, as they thought of the solemn owl as the favourite bird of Athena (Minerva), the goddess of wisdom, so they pictured the Peacock as attending Hera (Juno), the enthroned queen of heaven.

The clever Greek playwrights and poets quickly noticed the comically ugly voice that seemed to them to go so ill



PEACOCK BROUGHT HOME BY PHENICIAN SAILORS. $[Drawn\ by\ {\rm Watson}\ {\rm Charlion},$

with a bird of such fine plumes and stately bearing. It must have been a fairly familiar ornament of rich men's gardens, but how soon it became the fashion to have such ornaments we do not know. It probably came into Greece from Persia, a country with which, as every schoolboy knows, the Greeks had a good deal of intercourse, often of a very stormy kind.

When, however, in later years, under that mighty conqueror, Alexander the Great, Greek warriors marched eastward as far as India and saw these brilliant birds flaunting their beauties in their native sunshine, they appear to have regarded them as novel and wonderful. It was decreed among them that no Peacocks were to be killed.

The rich Romans, who seem to have ransacked the whole world, as it was then known, to find new things to eat and drink, added the Peacock to their long list of table dainties. They even bred and fattened them for that purpose, as we rear geese and turkeys.

In England, whither the Peacock was brought from abroad to grace the gardens of the great, it seems to have soon become a favourite dish for the table. An old Elizabethan writer, William Harrison, mentions "Peacocks of Ind" as among the "tame fowl" kept in many farmyards. But we know that at many a grand banquet it was brought in, plumes and all, on a great dish, with almost as much state as the boar's head on Christmas Day. When so brought, the Peacock was said to be served up "in his pride."

Some of my older readers may remember the grand Florentine feast in that wonderful story of *Romola*, in which the fashionable but very indigestible bird, arrayed in his feathers, formed one of the courses. Every guest

was too well-bred to decline it, but one and all were secretly very much afraid of the tough morsel.

No one did more than make a pretence of eating: "Tito dispersed his slice in small particles over his plate; Bernardo Rucellai made a learned observation about the ancient price of Peacocks' eggs, but did not pretend to eat his slice; and Niccolò Ridolfi held a mouthful on his fork while he told a story about a man of Siena, who, wanting to give a splendid entertainment at moderate expense, bought a wild goose, cut off its beak and webbed feet, and boiled it in its feathers, to pass for a pea-hen.

"In fact," says the author, who, of course, is laughing all the time at this fine company, "very little Peacock was eaten; but there was the satisfaction of sitting at a table where Peacock was served up in a remarkable manner, and of knowing that such things were not within reach of any but those who supped with the very wealthiest men."

We must suppose that our English forefathers had stronger digestions than these dainty eaters of fifteenth-century Florence. For Peacock seems to have been no uncommon dish—of course without its accompaniment of fine feathers—and great numbers were reared for the table.

A clever and curious device is mentioned by that old traveller, Sir John Mandeville, as seen by him in the Far East, nearly six hundred years ago. He says that in the great palace of the Khan of Tartary, "there are many Peacocks of gold; and when any Tartar maketh a banquet unto his lord, if the guests chance to clap their hands for joy and mirth, the said golden Peacocks also will spread abroad their wings, and lift up their trains, seeming as if they danced; and this I suppose to be done by art magic or by some secret engine under the ground."

The superstition that Peacock feathers are 'unlucky,'

does not seem to hold good in the East, for the Order of the Peacock's Feather is one of the most coveted rewards which the Emperor of China can bestow.

In many villages of India these gorgeous birds lead a half-tame existence, for they venture in from the forest in search of food, and as they are not molested, they may often be seen at roost on the tops of the native huts. There are temples, too, where the priests make pensioners of them, just as other temples have troops of sacred monkeys, and still others maintain flocks of sacred pigeons.

But the wild Peacock, when it is living a really wild life, in the jungle, has foes not a few. The tiger is only too glad to vary his meal of deer or pigling with an occasional sweetmeat of Peacock flesh, and he makes short work of tearing off the bird's long plumes. Indeed, so fond of it is he, that travellers scent danger, and tiger hunters have great expectations, when they catch sight of Peacocks, especially if the birds seem restless or scared. Should they utter a loud hoarse cry, echoed by others who may be feeding near, and fly up to the higher branches, with "a series of sharp, quick, grating notes," then be sure they detect some hidden foe prowling not far away.

There is a wide-spread belief among the natives that tigers and leopards can fascinate Peacocks. By this they mean that when the bird catches sight of the crouching beast, with its black spots or its stripes, and its cruel glittering eyes, it is spellbound. Instead of running or flying away, it remains staring at the intruder—quite silly with terror, as we say.

A remarkable story, illustrating this, is told by Colonel Tytler. He was stalking a Peacock in the jungle, and was surprised to notice that it did not hear him coming and make off. It stood quite still, as if rooted to the spot, with its gaze fixed on a thicket just in front.

The Colonel looked, and there, coming stealthily nearer, was a leopard, creeping with its head to the ground. This puzzled him, for he had learned that there were no leopards in that district; but he quickly prepared to bag the bigger creature, and, if need be, let the Peacock take fright and fly away.

But as soon as he raised his gun to fire, what was his astonishment to see the leopard throw up its paws, and scream to him in terror, "Nehin, Sahib, nehin, mut chulao!" (No, Sir, no, don't fire!).

For a moment the hunter thought fairy-tales were coming true, and all the weird Eastern stories of enchanted animals and bewitched princes and princesses which he had heard crowded into his mind. But the next instant the "leopard" rose on its hind feet, and the Englishman saw that it was a native hunter, cleverly got-up in a leopard skin. The head, with its glass eyes, was very real-looking, and so long as he crept low along the ground, through the grass, sharper creatures than the Peacock might well have believed that it was indeed a leopard stealing towards them.

The native was a fowler by calling, and he told the sportsman that, so disguised, he was always able to get near enough to any Peacock to shoot it easily with his bow and arrow, and sometimes even to grab the bird with his hand.

But if the Peacock "freezes" with terror at sight of an approaching leopard or tiger, he is valiant enough when it comes to battling with one of his own tribe. If he has a rival who offends him he will ruffle up his feathers and rush at him in a truly royal rage.

PEACOCK FASCINATED BY NATIVE HUNTER DISGUISED AS A LEOPARD.

[Drawn by Coldron Pearse.

Then the quiet forest depths resound with the cries of the two combatants, and the clatter of wings against wings. The grass and leaves are strewn with the beautiful feathers, as the sharp spurs tear and rend. Not infrequently the battle ends in one of the jealous fighters falling dead from wounds and exhaustion.

A more pleasant sight, but often a very odd one, is that of a peacock "showing off" to his lady-love. "He dances and struts before her, trailing his wings, puffing his glossy blue breast, and spreading his fine feathers into the splendid fan that we know so well." Usually these queer antics are accompanied by a rattling of his stiff quill feathers, which sounds like the pattering of raindrops on the forest leaves.

By the bye, strictly speaking, it is a mistake to call the train of a Peacock its tail. The gorgeous feathers are really the upper tail-coverts which are of unusual length. The crest is a most dainty ornament, consisting of some twenty-four thin-stemmed feathers, standing upright on the head. It adds much to the royal look of the bird.

Here is a word-picture of the Peacock, which I came across in a quaint old book, written by an English friar about the middle of the thirteenth century. It is not flattering to the bird:—

"The Peacock hath an unsteadfast and evil-shapen head, as it were the head of a serpent and with a crest. And he hath a simple pace, and small neck and areared (erect), and a blue breast, and a tail full of eyes distinguished and high with wonder(ful) fairness, and he hath foulest feet and rivelled (ugly and wrinkled feet)."

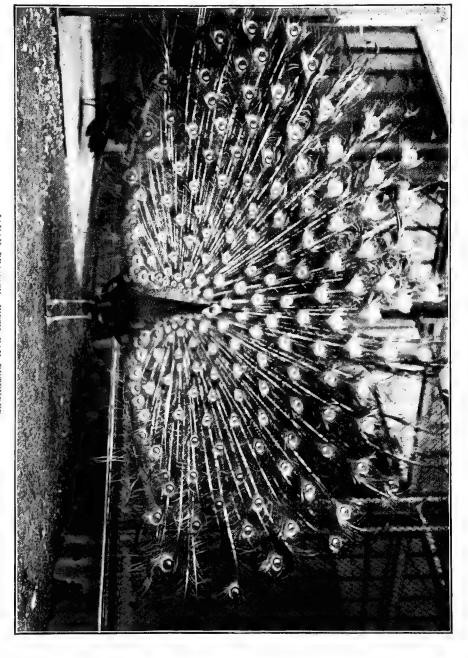
Then follows a queer notion. "And he wondereth of (is surprised at) the fairness of his feathers, and areareth (erects) them up, as it were a circle about his head, and then he looketh to his feet, and seeth the foulness of his feet, and like as he were ashamed he letteth his feathers fall suddenly, and all the tail downward, as though he took no heed of the fairness of his feathers." And the friar adds, "he hath an horrible voice."

Another old writer says much the same thing, though he says it more prettily: "The Peacock is much admired for his daintie coloured feathers, which, when he spreads them against the sunne, have a curious lustre and look like gemmes. Howbeit his black feet make him ashamed of his fair tail; and therefore when he seeth them (as angrie with Nature or grieved for that deformitie) he hangeth down his starrie plumes, and walketh slowly in a discontented fit of solitary sadnesse, like one possest with dull melancholy."

That the Peacock is one of the vainest of birds seems without a doubt. Many birds show off in courtship time, but the Peacock seems fond of flaunting his fine feathers all the year round.

A correspondent of the *Spectator* recently wrote a letter about a favourite and much-petted Peacock, who "could be kept happy for any length of time," if he were allowed to see himself in the window-pane or in a looking-glass. "He comes in daily to tea, making no mistake about the hour, and spends much time, on the way, in looking at his reflection in the glass of the French windows by which he enters the room.

"One side of our garden is bounded by a public footpath, which we reach by a stile. On Sunday afternoons this path is greatly frequented, and our bird takes up his position on the top of the stile in good time on that afternoon, though seldom on other days (no doubt he hears voices) to hear himself admired by the passers-by. He



JAVAN PEACOCK, WITH FAN ENTENDED.

hangs his tail over the fence to the best advantage; he knows his name, and will stand still a long time, or show off his tail for warm words of admiration."

Another example of a Peacock's vanity is given by Mr. Arthur C. Benson. It was a young bird, and it found out that it could see itself in the polished panels of the carriage whenever it was brought from the stables. It got so much pleasure out of the sight, that it would even follow the carriage down the drive, in case the driver should stop, and if he did, it would take up its stand and study its reflection in the shiny wood.

"It occurred to us to wonder what he would do if a looking-glass were placed on the lawn. This was done, and he at once found it out. Nothing will persuade him to quit it. He will stand by it for hours together . . . entirely absorbed. Sometimes he is motionless for a long time; occasionally he will move his head gently up and down, and sometimes softly touching the glass with his bill, appearing slightly bewildered by the contact.

"If food is thrown to him he takes no notice, unless it is close to the glass, when he will hurriedly gobble it up and return to his occupation in haste, as though vexed at being interrupted."

Here is one more story: In a certain English country house, one of the chief ornaments of the beautiful gardens was a Peacock. Naturally enough he had many admirers, but of these he himself was the chief. This fact was noticed by the household cat, and she watched her opportunity. She was determined to humble this proud bird if she could.

Now the Peacock was in the habit of coming up regularly every morning to the house to be fed. He would take up his stand in front of the window and attract the

attention of the family by opening and folding his great fan of feathers. This trick was one that puss particularly disliked; it was so clearly a case of showing-off. But how was it to be stopped? If she flew at the Peacock, the latter might show fight, or, more likely still, her master might interfere, and have her sent away as a savage, illnatured animal.

This was what she did. The next time the great fan of beautiful feathers was unfurled, puss crept up behind, sprang right through the fan, and alighted in front of the Peacock. Imagine his astonishment at this rude interruption of his favourite performance! But before he had time to recover from his surprise, the cat turned and jumped through the fan again, backwards and forwards, to and fro, till the Peacock shut up his splendid plumes, and moved away, crestfallen and much upset. Surely, never before had a Peacock been so "taken down" by a common cat.

A very similar instance is related by Mrs. Coulson Kernahan, the novelist. She had, among her household pets, two tame rooks. There was a Peacock which stalked about the garden, and one of these rooks had a grudge against the bird, evidently deeply resenting so much pride. When the Peacock spread out his fan, the rook would fly at him, pecking his legs, and even perching upon his back the better to punish him for his vanity.

When one thinks of the hot countries of the East from which this lovely bird has been brought it seems strange that he should adapt himself so easily to a climate like that of England. Yet I have seen it stated that he is "never in better health than in a dry English winter."

It is a most happy thing that this is so, for few things are sadder than to see the animals and birds of brilliant.

sultry, far-away lands slowly dying in this northern island, where mist and rain and cloud too often shut out every glimpse of the sun.

But true it is that no one has seen the Peacock in his glory who has not seen him at home in the tangled forests of India and Ceylon, of Burmah and the Malay Peninsula, and the spice-scented island of Java. There we can picture him greeting the dawn with his hoarse kok-kok-kok, from the high tree-boughs where he and his wives have roosted through the dark but noisy hours of the tropical night; or running to and fro in the long grass, as if on urgent business; or invading with forty or fifty of his fellows the cultivated patches near the village, where, perhaps, some sheet of yellow mustard bloom sets off the glittering blue of their breasts and the glory of their sweeping trains.

THE TOUCAN.

HAT the Hornbills are to the forests of Asia and Africa the Toucans are to the wild wooded regions of Central and South America.

They have the same extraordinarily long and large beak, they live among the trees, they have the same habit of jumping heavily from bough to bough, their food is the same—fruits, seeds, insects—and they nest in holes high up in the trunks of trees. But even if the distinctions which a scientist could point out are not easily noticed, or not understood, you may easily tell a Toucan from a Hornbill by the absence of the little horny helmet above the beak.

The colouring of the Toucans, too, is far more beautiful. Not only the soft plumage and the patch of bare skin round the eyes, but even the ponderous beak itself can show rich and lovely colours. "In some species, and often in the same bird," says J. G. Wood, "the intensest carmine, azure, emerald-green, orange, and gold may be seen set off by jetty black and snowy white, while in others the feathers are tinged with the softest and most delicate grey, lilac, pink and primrose."

It has been regretted that these vivid colours (even those of the beak) soon fade and lose their lustre after death. But if this were not so, these birds would probably be butchered as freely as some of their brightly dressed bird-neighbours, and their wonderful feathers would be packed and sent off to the auction rooms of New York, and Paris, and London.

The smaller members of the Toucan tribe, says Waterton, are sociable enough but do not live in flocks. "You may sometimes see eight or ten in company," he says, "and from this you would suppose they are gregarious; but, upon a closer examination, you will find it has only been a dinner-party, which breaks up and disperses towards roosting-time."

They are noisy, too, when they get together. Says another writer: "They have a habit of sitting on the branches, with a sentinel stationed to warn them, and are fond of lifting up their beaks, clattering them together, and shouting hoarsely. Sometimes the whole party, including the sentinel, set up a simultaneous yell, which is so deafeningly loud that it can be heard at the distance or a mile." Their habit of chattering often betrays them to their enemies.

Of these, man is certainly one of the most relentless. The fact is, the flesh of the Toucan is a dainty of which the natives of these regions are particularly fond.

"Every one at Ega," says the Naturalist of the Amazons, "who can get a gun of any sort and a few charges of powder and shot, or a blow-pipe, goes daily [at a particular season] to the woods to kill a few brace for dinner; for the people of Ega live almost entirely on stewed and roasted Toucans during the months of June and July. The birds are then very fat, and the meat exceedingly sweet and tender."

But, at other times of the year, the same writer confesses that it is very difficult to get a shot at a Toucan. Even before he draws near to the tree on which they happen to be perched, these wary birds detect him. "They stretch their necks downwards to look beneath, and on espying the least movement among

the foliage, fly off to the more inaccessible parts of the forest."

Bates believed that the chief use of the Toucan's large beak was as a sort of long hand in gathering its food. "It can reach and devour immense quantities of fruit whilst remaining seated, and thus its heavy body and gluttonous appetite" are alike suited. The beak of the big Toco Toucan is some eight and a half inches long—one-third of the entire length of the bird.

The weight of the beak is comparatively little, for it is quite a thin structure; but of course it is cumbrous, and its owner, when going to sleep, has a habit of resting it on its back, well muffled up in the soft feathers. The tail moves up, just for all the world like a mechanical toy, and drops lightly over the back. When thus packed up for the night, nothing can be seen but a fluffy bundle of feathers; the huge and gaily-coloured beak is completely hidden.

Let me close with a couple of stories which H. W. Bates tells in his book of South American travel: "One day whilst walking along the principal pathway in the woods near Ega, I saw one of these Toucans seated gravely on a low branch close to the road, and had no difficulty in seizing it with my hand.

"It turned out to be a runaway pet bird. No one, however, came to own it. The bird was in a half-starved and sickly condition, but after a few days of good living it recovered health and spirits, and became one of the most amusing pets imaginable. . . . I allowed Tocáno to go free about the house. . . . He ate of everything that we eat; beef, turtle, fish, farinha, fruit, and was a constant attendant at our table—a cloth spread on a mat.

"His appetite was ravenous and his powers of digestion quite wonderful. He got to know the meal hours to a nicety, and we found it very difficult, after the first week or two, to keep him away from the dining-room, where he had become very impudent and troublesome. We tried to shut him out by enclosing him in the back-yard, but he used to climb the fence and hop round by a long circuit to the dining-room, making his appearance with the greatest punctuality as the meal was placed on the table."

The sight of the droll-looking bird, irrepressible and quite unabashed, suddenly turning up, when the household were thinking themselves happily delivered from his

presence, must have been "too funny for words."

He calls the other story an "amusing adventure," but it was something of a scare. The bird concerned was one of the smaller species, the Curl-Crested Toucan which gets its name from the curious top-knot of stiff feathers—really thin horny plates, as Bates describes them, "of a lustrous black colour, curled up at the ends and resembling shavings of steel or ebony wood." Its usual note is not unlike the croaking of frogs, but its cry of distress is effective enough, as the adventure proved.

"I had shot one of these birds from a rather high tree in a dark glen in the forest, and leaving my gun leaning against a tree-trunk in the pathway, went into the thicket where the bird had fallen, to secure my booty. It was only wounded, and on my attempting to seize it, it set up

a loud scream.

"In an instant, as if by magic, the shady nook seemed alive with these birds, although there was certainly none visible when I entered the thicket. They descended towards me, hopping from bough to bough, some of them swinging on the loops and cables of woody lianas, and all croaking and fluttering their wings like so many furies.

Had I had a long stick in my hand I could have knocked several of them over. After killing the wounded one I rushed off to fetch my gun, but the screaming of their companion having ceased, they remounted the trees, and, before I could reload, every one of them had disappeared."

THE VULTURES.

THERE are two ways of looking at a Vulture, and of thinking of him. One way is to regard him as a detestable carrion-gorging scavenger. The other way is to notice his steady piercing eye, his strong taloned feet, his huge and tireless wings.

The one view of him calls up a picture of the shimmering sands of the desert, and a group of hook-beaked bird-monsters tearing to pieces a dead body. The other view shows us those desert sands lying stretched out like a map, far below, and above, in the burning glaring blue, a pair of giant pinions

"strenuously beating The silent boundless regions of the sky."

The one thought fills us with disgust, the other with wonder and admiration.

But if we are to have a right and true idea of this great bird we must blend the two. A bird of prey is never "nice in its habits," and the Vulture has the reputation of being more greedy and gross than perhaps any of his meat-eating fellows. Some of his tribe indeed—the small Egyptian Vulture, for example—are contemptible cowardly creatures, with nothing noble about them, and horribly foul in their way of feeding. But others, like the Griffon, and even the Black Vulture, have only to rise into the air and spread their enormous wings, to be called, without hesitation, magnificent.

In many parts of Africa and Asia, Vultures may be

seen, busily engaged, in the neighbourhood of towns and cities. Where modern science has not come to teach the inhabitants how to keep their streets clear and clean, the presence of these birds is a boon indeed. They consume the garbage which otherwise would lie for days poisoning the air and perhaps breeding plague. (London was once equally careless in the matter of street refuse, and those swift, sharp-sighted birds, the Kites, were actually encouraged as scavengers.)

But the grander members of the tribe prefer the solitude to the town. The great open spaces beyond the city walls are to them infinitely to be preferred to the haunts of men. For there is plenty of carrion for those whose eyes are quick to espy and whose wings are ready to sail to the spot.

These two powers—of flight and of sight—are, indeed, about all that we have to admire in this tribe of birds. As a rule, they lack courage, though they can be made furious, and will, at such times, do audacious things. But they are not so fully armed for fighting as the Eagles, for their talons are short and rather blunt. They are sluggish, too, and prefer to sit quietly devouring piecemeal a dead horse or ox, than to strike and kill a living animal in the open.

Their quickness in detecting carrion is extraordinary. This has been noticed for ages past, but, until quite recent times, a good many naturalists believed that it was as much by scent as by sight. Such experiments, however, as Audubon and Darwin made with strong-smelling food, wrapped up and put close to Condors and other birds of prey, have proved that many or most of them have a very weak sense of smell.

Like the albatross of the Southern Seas, the Vulture

[From a large drawing by Ernest Griset.

is built for sailing, with scarcely an effort and without weariness, hour after hour, in the air, now hanging motionless, now sliding forward like an aeroplane. But the sea bird contents himself with a moderate height above the waves, whereas the Vulture delights to rise to dizzy heights.

Travellers have often remarked on the mysterious way in which, as soon as an animal falls sick or drops dead, several Vultures will almost at once appear, though there may not have been a single one anywhere in sight before. The explanation is that high overhead—too high to be seen by human eye—one of these great birds has been hovering, and noticing everything that has occurred. His marvellous telescope-like eyes watched the caravan winding across the sandy plain; saw the sick camel or horse or waggon-ox stagger and sink down; noticed the harness or the load being taken off it, and the dead body dragged to the side of the track, and the party move on.

"Food!" cries the great bird, and, closing his wings, he shoots downward through those thousands of feet of shining air—"drops into view," as one writer has said, "like a fragment from another planet."

Instantly, another Vulture who has been soaring at a different height and perhaps half a mile distant espies his neighbour's movement, and follows him in one great swoop. He in turn is noticed by another, and he by yet another, until the dead camel is surrounded by a grim company of these desert-scavengers, ready and eager to strip his carcass to the very bone.

War always provides a ghastly feast for the Vultures. As if by some magical means, but really in the way I have just described, even those of the tribe whose usual haunts are hundreds of miles away, get to know of the

slaughter that is going on. Southern Russia is not a favourite home of the Vulture, but when the Crimean War broke out, and the mud and snow around Sebastopol was littered with dead horses, enormous numbers of these birds made their appearance. They had come thither from Asia Minor and the wild mountainous regions still further east, and even from as far afield as the Atlas range in North Africa, so the Arabs averred.

When, in the early days of the terrible Indian Mutiny, the British army was encamped on the Ridge, before Delhi, waiting to capture the city, "carrion birds never seen so far north came in flocks to the camp." They were welcome visitors, for there was much illness among our troops, and where these birds had been at work the ground was cleared of much that poisoned the air.

All such times as that of the Abyssinian War, or the Afghan War, or the campaign against the cruel Dervishes in the Soudan, have meant the flocking of the Vultures; and the late war in South Africa furnished many a horse and mule to be devoured as soon as the noise of the fighting had died away.

Writing home during that war, a young cavalry officer thus refers to these birds: "The Vulture (Aasvogel) is everywhere. Alas! the carcasses are there in their thousands, and the huge, brown, hideous birds sit in packs round their prey, while dark specks coming together from every quarter of the sky add, every moment, to the list of guests. In an hour a dead horse is a skeleton covered with a skin. How the creatures manage to do their work through the tiny holes they bore in the skin is a marvel. Disturbed, they hop away with outstretched wings, for all the world like boys racing tied up in sacks,

until they have got sufficient impetus to rise in a heavy flight."

In East Africa, the great-billed Marabou storks and the Vultures will often meet at the same banquet. The former have a vulture-like power of sailing high in the air for long together, but when they descend, tempted by the same horrible meal, a single Marabou will keep his hookbeaked companions at a distance till he himself has supped. Says Mr. Chapman, in his recent book *On Safari*: "The Marabou is really master of the feast. Stalking into the crowd, he sets the huge Vultures flapping aside in sore dismay from that terrible bayonet-like beak."

All over the warmer parts of our globe there are to be found one or more members of the Vulture family. For the largest of all we must go to South America.

The CONDOR of the Andes is the mightiest-winged of all land birds. One that Darwin shot, in Patagonia, measured eight and a half feet from wing-tip to wing-tip, and four feet from beak to tail; and he does not speak of this specimen as being of unusual size. Some idea of the mighty framework of a Condor's wing may be gained from the fact that in quite a moderate-sized specimen one of the quill feathers was two feet two inches in length, and these quills are often as thick as the base of a Lee-Metford cartridge.

The sea-coasts and river-valleys see the passing of those giant wings, but the real home of the Condor is the solitude of the mountain fastnesses. He is a bird of the beetling precipices—places that make the ordinary traveller dizzy to gaze at. These are his retreat, his citadel, and from the craggy battlements he loves to fling himself into the air and sail away and away.

The heights to which he will soar are simply amazing.

Humboldt, when travelling in the Andes, had reached a certain cave, close on 13,000 feet above the sea-level. Looking up, he saw a Condor soaring nearly 7,000 feet above him. Almost as wonderful, is the fact that this bird is able to bear the change from the fearful cold of that altitude of 20,000 feet to the warm, dense air of the sea-coast, to which it will descend in one tremendous dive.

On some unreachable ledge of those steep cliffs is the Condor's nursery. Nest there is none. Two large, white eggs are laid there, in November or December. Darwin was told that the young birds are not able to fly for the first year, and that for long after they are in the habit of roosting there by night, and going abroad with their parents during the day.

"The old birds usually live in pairs," he says, "but among the inland, basalt cliffs of the Santa Cruz, I found a spot where scores must usually haunt. On coming suddenly to the brow of the precipice, it was a grand sight to see between twenty and thirty of these great birds start heavily from their resting-place and wheel away in majestic circles.

"The Condors may oftentimes be seen at a great height, soaring over a certain spot in the most graceful circles. On some occasions I am sure that they do this only for pleasure. But, on others, the Chileno countryman tells you that they are watching a dying animal or the puma devouring its prey. If the Condors glide down, and then suddenly all rise together, the Chileno knows that it is the puma, which, watching the carcass, has sprung out to drive away the robbers. Besides feeding on carrion, the Condors frequently attack young goats and lambs; and the shepherd dogs are trained, whenever they

(the Condors) pass over, to run out, and looking upwards to bark violently. The Chilenos destroy and catch numbers."

There are several ways of doing this. One of the simplest is to wait until a Condor has gorged itself on some dead animal and then to rush upon it and kill or



THE CONDOR (MALE BIRD).

Photograph by]

[W. S. Berridge, F.Z.S.

secure it. Sometimes the tempting bait is laid out within a small enclosure, into which one Condor after another comes dropping down, but from which they cannot so easily escape, because there is no space to take the little run by which alone they can launch themselves from the ground.

Another way is to find the trees in which very often five or six Condors will go to roost, and then at night to climb up and slip a cord over each of them. Being heavy sleepers this is by no means difficult.

A third way is more original. It is practised by the Indians of Chili and Peru. One of them creeps under a fresh cow-hide, to which pieces of flesh are still adhering, and which has been spread out on some tract of high ground. He takes with him some pieces of stout cord, and his comrades are concealed near by, ready to come to his assistance. Down swoops a Condor, alighting on the supposed dead cow, and is immediately gripped by the legs and secured with the cords.

Live Condors may often be bought in the town and village markets for any price from one to eight or ten shillings. A Condor in good condition is a very handsome bird. For although the bare fleshy growth which comes down "over the nose" has rather an odd appearance, the ruff of white down, round the base of the neck, and the glossy black of the back and wings make a very striking contrast.

The CALIFORNIAN VULTURE rivals the Condor, it would seem, in point of size. He is a brownish-black bird, with a band of white under the wings which is very noticeable when he is flying. He makes his home among rocks and cliffs too high and steep and lonely for any one to be tempted into robbing the nest.

There seem to be a good many of his tribe in the solitudes of the Sierra Nevada, and if he did not range abroad he would be pretty safe. But his enormous wings—often ten feet across—carry him far and wide. Often he seeks the haunts of man, and thereby runs into danger. For on many of the cattle ranches there is a

murderous custom of leaving carcasses, well loaded with strychnine, lying about. The poison is meant for the wolves, but too often it is a Vulture that tastes the fatal bait and pays the penalty.

The big quills of this bird are much in demand among the Mexican miners of Lower California. They use them

for storing gold dust.

The grandest of the whole Vulture clan, perhaps, is the GRIFFON VULTURE. His length varies from four feet to four feet eight inches. His wings have an expanse of eight feet, and their power is very great.

You will find in the Old Testament quite a number of references to this striking-looking bird of prey, but unfortunately the name is often wrongly translated "Eagle." Here are a few:—

In Job we read: "Doth the Eagle (Griffon) mount up at thy command, and make her nest on high? She dwelleth and abideth on the rock, upon the crag of the rock, and the strong place. From thence she seeketh the prey, and her eyes behold afar off. Her young ones also suck up blood: and where the slain are, there is she."

A graphic description, in which the nesting and feeding habits, the soaring powers, and the marvellous eye-

sight are all summed up in two or three sentences.

In Jeremiah, we have these fine words of warning: "O thou that dwellest in the clefts of the rock, that holdest the height of the hill: though thou shouldest make thy nest as high as the [Griffon] I will bring thee down from thence, saith the Lord." And still better known are those solemn words of our Lord Jesus Christ: "Wheresoever the carcase is, there will the Eagles be gathered together." It would be the flocking together of Vultures that He would have in His thoughts.

Canon Tristram very properly complains that it is unfortunate that we should only have one word, one name, for the whole tribe of Vultures, thus classing together the contemptible and rather small Egyptian Vulture and the great and noble-looking Griffon. And he points out how differently we of to-day regard the Griffon, from the ancient nations of those Eastern lands where he was and is such a familiar sight.

Some of my readers may have noticed in the sculptures (perhaps in pictures of the sculptures) of Nineveh, the figure of one of the Assyrian gods, represented with a Griffon's head and beak. It is the God Nisroch. And there are plenty of other signs that this fierce and cruel people had found in the Griffon Vulture an emblem that was quite after their own heart. They had noticed so often its magnificent powers of flight, its proud bearing, its keen, pitiless eye, and the fearful tearing power of that great beak. All these things pleased their fancy mightily: they adopted the Griffon as their standard. So did the Persians, at a later date.

The nesting-place of the Griffon Vulture is in keeping with its character. "While the eagles and other birds are content with lower elevations, and sometimes even with trees, the Griffon alone chooses the stupendous gorges of Arabia Petræa and the defiles of Palestine, and there in great communities rears its young, where the most daring climber can only reach its nest by means of ropes."

The Holy Land is much more frequented by tourists and travellers than it was fifty or even five-and-twenty years ago, and such intrusions soon have their effect in scaring away the wilder birds to more lonely districts. But here is what Canon Tristram could say in the "sixties": "The

number of Griffons in every part of Palestine is amazing, and they are found at all seasons of the year. I do not think I ever surveyed a landscape without its being enlivened by the circling of a party of Griffons." He gives a list of the places where he and his companions noticed colonies of these great Vultures, and he describes one such settlement:—

"Wady Hamam is celebrated in Jewish history as the stronghold of a powerful band of robbers and rebels, who for years set at defiance all the power of Herod and the Romans. On either side the cliffs rise to a height of more than eight hundred feet, pierced and honeycombed by a multitude of caverns and narrow passages. . . . From the days of Titus to the present, these caverns have remained the undisturbed home of the Griffons." Of this place and another he says: "In either of these gorges the reverberating echoes of a single rifle-shot would bring forth Griffons by the hundred from their recesses. On one occasion I counted one hundred and twenty thus roused, and then gave up the reckoning in despair," there were so many still to count.

The Canon gives the bird quite a good character—for a Vulture. He commends him as a bird of great intelligence, and, apparently, not more unpleasant in his feeding than the much-admired Eagle. He may drive away other birds while he is feasting, but his fellow-Griffons are welcome to share in his meal, to any number. He does not "snarl" and quarrel over his find, as would a party of scavenger dogs, or snatch a better mouthful from a weaker neighbour.

His strength is in his wings and his beak. His feet are comparatively weak. They have nothing like the grip of an Eagle's feet—the grip that kills.

A writer in the Spectator thus describes the Griffon:

"It is the most elegant of all the tribe, in its plumage, except the King Vulture. The head is not bare, but covered with short glistening white down. The hazel eye is bright and clean, the beak sharp, and the stretch of wing enormous. Round the neck runs a white ruff, and the plumage is a clear tawny and cream colour."

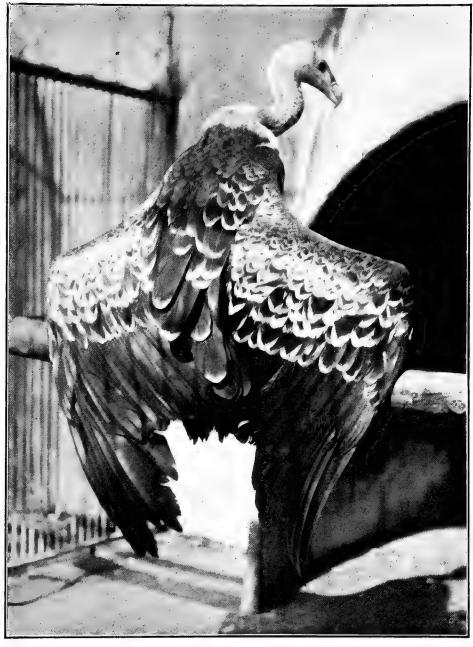
"The nest of the Griffon Vulture," says the same writer, "is found as far north as the Tyrol; in the cliffs of the Dobrudscha, where the Danube leaves the last high ground in its course; and in the mountains of Spain."

In Spain, recent travellers tell us, there are still to be found not only five different kinds of eagles, but also four kinds of Vultures. The immense pine-forests and the crags and precipices of the sierras are just the kind of home they like. Few footsteps ever invade their neighbourhood—shepherd and goat-herd, gipsy and charcoal-burner are the likeliest comers, but immense tracts of mountain and forest are really unbroken solitudes.

Mr. R. B. Lodge quite lately penetrated into these wild parts. Some of his experiences must have been thrilling. In his book, he tells of one in particular, which he met with while trying to get within sight of an eagle:—

"Following our guide, after we had hobbled the donkey at the nearest available spot, we clambered for some distance over a series of huge boulders, by degrees getting higher and higher, until we arrived at the verge of a tremendous cliff. . . . But we could see no signs of any Eagle's nest until I fired a pistol, when out swept, a few yards to our right, with a tremendous rustle of big wingfeathers, not the expected Eagle, but an immense Griffon Vulture.

"The Griffon had appeared from a ledge not far down the precipice, and the next thing was to make an attempt



Rüppell's Vulture.

to reach the spot. The guide went first to reconnoitre and was soon lost to sight; but after a few minutes we could hear his hail and see his head over a rock corner. Shouting out that there were *eggs*, he directed us to make the best of our way down to where he was.

"Our path ran downwards in a slanting direction. The rock was composed of gigantic boulders, and from one to another of these we had to drop and make our way as best we could; . . . but after a rough scramble all four of us found ourselves actually standing in the Griffon's nest.

"Looking straight down under our feet we could see, a thousand feet below us, a tiny patch of yellow sand on which the little waves were lazily rolling; while far away to the horizon the sea shimmered and shone in the glorious sunshine, with tints of blue and green and purple."

In the nest the party found one young bird, very limp and exhausted, either through the heat or through want of food. It lay prone in the bottom of the nest. The Griffon, by the bye, only lays one egg, usually in February or March.

One member of the Griffon family is the species known as RÜPPELL'S VULTURE, of which I am able to give a fine photograph. It shows the bird in the act of spreading its wings to catch the warmth of the sun—"sunning," as it is called, or basking, as we should say.

The KING VULTURE of Central and South America is "a forest-loving bird, caring nothing for the lofty home of its mountain neighbour, the Condor, but taking up its residence in the low heavily-wooded places bordering swamps and marshy ground. The nest is usually to be found in the hollow of some decaying tree."

For its appearance let me quote to you the glowing description given by Waterton, the famous traveller: "The throat and back of the neck are of a fine lemon colour:

both sides of the neck, from the ears downwards, of a rich scarlet. . . . The crown of the head is scarlet. Close by the ear there is a part which has a fine silvery-blue appearance. The bill is orange and black." It is only the mature bird that is arrayed in these bright colours.

This is one of the smaller Vultures. It does not seem to be very abundant, and very little is known about it. There is or was a specimen at the London Zoo.

Another gaily coloured bird is the Pondicherry Vulture. Listen to this description by a recent writer; it sounds gorgeous enough for one of the parrot tribe: "It is a very striking-looking bird. The skin of the head is like pale pink sealing-wax; the eye is dark; the beak is like a bill-hook. The broad feathers in which it is arrayed as in armour are dark grey, creamy brown and black, and the rounded tips of these feathers, edged with black, give it the appearance of being clad in scales of damasked steel. The legs are pale pink."

But of all the Vultures perhaps the LAMMERGEIER is the most interesting to young people. For this is the Vulture about which, from time to time, strange but true stories have been told, as to its carrying off babies and tiny children to its nest.

Such incidents are not common, and unbelievers have laughed at the idea, pointing out that the comparative weakness of a Vulture's clutch would make such an act impossible. It is quite true that a Vulture's grip is not that of an Eagle, but there are well-proven cases of such kidnapping having occurred from time to time. Some of these I will mention later on.

The Lammergeier or Bearded Vulture (so called from the curious tuft of stiff bristles under its beak) is one of those grand fierce creatures of prey which were once so numerous throughout Europe, but which now have to be sought for in the wildest and most out-of-the-way mountain retreats.

The late Crown Prince of Austria, who went after every rare bird he could hear of, on the Continent, thought himself very lucky to bag a pair of Lammergeiers in the Sierra Nevada. He and his assistants found out where the nest was placed—a large round hole in the face of a precipitous wall of rock. Then he sat down, covered with a screen of cut twigs and boughs. Presently the bird appeared.

"I could not see it from my hiding-place," he writes, "but the hunter whispered to me that it was flying up along the slope of the hill close below us. I only heard its cry, a deep grunting sound. . . . I soon observed the young bird raise itself on the edge of the nest and petulantly shake its wings. It was already a fine big fellow, with its body feathered, but its head still covered with down. Ten minutes had hardly passed when we saw a great shadow glide over the ground. . . . It swept twice past our ambush and then flew to the nest.

"The way in which the Bearded Vulture returns to its nest is quite different from that of most Vultures; it is much more like that of the Eagles. For with stiffly extended wings, outstretched feet, head held high, and tail carried straight out, it shoots in like an arrow."

The bird sat for a time feeding its young one, with its tail projecting from the cliff wall. The hunters shouted to make it fly out, but at first it paid no heed. "It was only after repeated shouts that the long tail vanished into the hole, and in its place there appeared the goat-like head, with its bristly beard and gleaming eyes, and the yellow breast of the Bearded Vulture—the strangest, rarest,

and noblest bird of prey that inhabits the mountains of Europe."

Fierce robber though he might be, it is pitiable to think of both this giant bird and his mate falling to the murderous rifle. (The Prince's regret for the disappearance of rare European birds never seems to have led him to spare them, when he had the chance of a shot!)

When the old birds had been killed, a peasant was paid to climb down by means of a rope-ladder and fetch the baby Vulture. This was both a dangerous and a difficult business, for even when the nest-hole was reached the young bird scuttled back into its cave. But at last the Spaniard managed to capture it and put it in his basket. The "baby" throve well in captivity. "It grew remarkably fast, kept in capital health, ate great quantities of flesh, and in time lost its fear of man. It even got used to the dogs, of which at first it had the greatest dread."

The early nesting of the Lammergeier is one of the few things which help to preserve this rare bird from becoming extinct in Europe. "A very early breeder," says Mr. Lodge, "its nesting-places are extremely difficult to reach before the young are hatched, on account of the deep snow which prevails in the early part of the year."

The Lammergeier is a striking-looking bird, with its varied plumage,—yellow-brown, hoary grey, black, and bright yellow,—its fierce head with the black stripe above each eye, its "beard," which is quite conspicuous even at a distance, and its long powerful wings, which often measure ten feet across from tip to tip.

It is said to resemble the Falcon in the way it perches and sits motionless on rocky pinnacles, or shoots swiftly along, skimming over the ground, or soars up into the air playing and tumbling about. The name Lammergeier means the Vulture that steals lambs. Probably in former days, before the modern rifle was invented, that name was well earned. But the Bearded Vultures that remain in Europe to-day have too much wholesome respect for those death-darting tubes to come too near the shepherds' huts. The old enmity, however, is still kept up. Now and again one of these great birds is shot; or its nest is broken up by stones hurled at it. In Switzerland a Government reward was offered for every Vulture killed.

It seems as if the Lammergeiers of earlier days were far more daring than are the few survivors in Spain and Austria at the present time. Here are two examples of their readiness even to attack man. In the Swiss canton (state) of Glaris a turpentine-gatherer had been bold enough, or foolhardy enough, to rob a Lammergeier's nest. He scaled the rock, and, tying the two young birds by the legs, slung them over his back, and began to climb down the precipice. Then down upon him swooped the parent birds, and did their very best to buffet him from his narrow foothold. In this they failed, but so persistent were they that they pursued the man for four miles to the village of Schwanden, to which he carried his plunder.

On another occasion, Joseph Scherrer, a hunter, had shot a male Lammergeier, and proceeded to make his way up to the nest. But on reaching it he was startled by the sudden uprising of another great bird. It was the female, who, seeing the robber coming, attacked him boldly, drove her talons into his back, and tried with mighty wing-flappings to tear him from the cliff. The man, holding on to the rock with both hands, dared not let go to shoot, yet feared lest the huge creature should succeed in pulling him over the edge. At last he managed to shift his gun till it

pointed straight at the bird's breast. Then with a dexterous movement of his foot he cocked and fired it, and his fierce assailant slid down the rocks, dead.

Some scientists, as I have already mentioned, disbelieve the stories of Lammergeiers carrying off babies. But there are well-authenticated instances, recorded by Tschudi, the naturalist of the Alps. Here are a few, and with these I must bring this chapter to a close.

In the year 1854 there was living in the canton of Uri a Swiss woman who, when a baby, had been carried off by a Lammergeier, and rescued. At Hundwyl, in the canton of Appenzell, a child was carried off within sight of its parents. A little herd boy was sitting one day on a high rock, on the Silberalp, idly watching his sheep, when without a moment's warning great wings swept down upon him, and sent him hurtling over the brink. Some shepherds, horrified at the boy's danger, had vainly tried to scare the Vulture away with their shouts. The bird of prey was not to be so easily daunted, and made sure of his victim before help could reach him.

This, by the bye, is a favourite trick, both of Vultures and Eagles. The precipice-edge, they well know, is a place where anything that cannot fly may be taken at a disadvantage. Then is their golden opportunity.

Two more instances, and I have done. At Murren, a place now well known to all tourists in Switzerland, a Vulture once carried away a baby to a high rock opposite the village. The spot was quite beyond the reach of any climber, and the onlookers had the horror of watching the bird settle down to its dreadful feast. Pieces of the poor little child's red frock lay about the rock for some time after.

The second story is exciting but not sad or terrible.

A three-year-old baby girl, named Anne Zurbuchen, had been taken up to a part of the mountain-side (it was in the Bernese Oberland) where her parents were busy getting in the hay. She was laid down, as peasant babies often are, in some shady corner of the pasture, and left to go to sleep. Her father kept an eye on her, but while he was gone to fetch a load of hay, a Lammergeier which had been watching its chance flew down, picked up the child, and carried her off.

The father's alarm and anxiety when he returned and found his baby gone may easily be imagined. Meanwhile another peasant, coming up the mountain-side by a rough and less-used path, had heard the cry of a child, and wondered whence it came. At that moment a great bird rose and sailed away. Hurrying up to the place, the peasant, Henri Michel by name, found the child lying where the Vulture had put her down. She had wounds on the arm and left hand, where the sharp claws had grasped her, but otherwise she was uninjured. Her shoes and socks and her little cap had fallen off during her strange journey through the air, as if she had kicked and struggled a little; but of course she was too young to describe exactly what had happened when thus caught up and carried away.

The wonderful story was all set down then and there in the village records. Habkeren was the village. The little girl lived to be an old woman, and was known to every one by the romantic nickname of Geier-Anni.

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