

THE HORNBILL.

BY FRED BEVERLEY.

It is not strange that Africa, the home of the gorilla and hippopotamus, should possess the most curious specimens of the great class of birds; for it has been found to contain within its tangled jungles the rarest and most grotesque forms of animal life, though we must except the island of Australia, where the laughing jackass and the kangaroo are found.

One of the most interesting and attractive families of birds is that of the hornbill, one species of which is shown in the illustration. Although this bird is found in India, it is much more abundant in Africa.

If we may believe report, the bill of the hornbill is nearly one-fourth the length of its body. The bill is very long, curved, deep and thin, and has a helmet upon its crown, of various shapes and sizes; and this helmet is used to give to many species their specific, or proper names. Thus, there is the *Buceros bicornis*, or two-horned hornbill; the *Buceros rhinoceros*, or rhinoceros hornbill, so called from the immense helmet resembling the horn of a rhinoceros. *Buceros* is the generic name applied to them for some peculiarity they all possess in common; the specific, or individual, names being derived from the shapes of their helmets.

Though seemingly heavy and unwieldy, the bill of the hornbill is very light, being composed of light cellular tissue, resembling in this respect the skull of the elephant; and the walls of thin bone are so fragile, that in dried specimens it may be crushed in the hand. The edge of the mandibles, or beaks, are very sharp, frequently breaking off and being renewed. It is said that the age of the bird may be ascertained from the wrinkles on its bill, as the age of a cow is sometimes told from the wrinkles around her horns.

Before proceeding further, it may be well to notice a family of birds, inhabiting South America, often confounded with the hornbills, from their resemblance. These are the toucans. They are confined to the warmer portions of the New World, as the hornbills are to those of the Old. Their bills are large, of the same structure, but lack the helmet; they are brighter-colored and gaudy of plumage. Their voices are loud and harsh, and can be heard a long way.

It is from the cry of the Brazilian species, "toucano," that they derive their name. When feeding, they post a sentinel. They have a habit of sitting upon the topmost branches of trees, chattering, lifting their heads at regular intervals, clashing their bills together, and crying out so loudly as to be heard at the dis-

tance of a mile. From this the natives have given them the name of "preacher birds." They have great antipathy to any bird uglier than themselves, and will mob an owl with the zest of crows, nearly frightening the poor bird to death with their clashing beaks and loud cries.

To return to our friends the hornbills. From the great size of their bills, they cannot walk easily upon the ground, but hop along awkwardly. The trees are their homes, and they hop from limb to limb with great ease, climbing to the tree-tops, where they remain for hours shouting gleefully in their bravest tones.

They feed upon pulpy fruits, small animals, reptiles and insects, and make their nests in hollow trees.

have been told by Livingstone the African explorer, that this bird breeds, like the other members of its family, in hollow trees; that it makes its nest in holes in the trunks of these trees, that the female lines its nest with feathers from her own body, and lays four or five eggs, white, and of the size of pigeons' eggs.

In this there is nothing remarkably noteworthy; but we are astonished when we read further and find that, after the nest is prepared to the satisfaction of the female, she is shut up a close prisoner for weeks; that the entrance to the hole is plastered over with mud, until only a little slit is left, three or four inches long and half an inch wide—just large enough to admit the beak.

The male bird, who has walled

up the young hornbills; but, although they cannot tell exactly why the plan is adopted, there is no doubt that the old birds know what they are about.

It is certainly not to prevent the escape of his mate that the male works so industriously to imprison her, and becomes lean and emaciated in his labor of love, in procuring food for her and their little ones during those two long weary months. It is more than probable that the object sought is to prevent the entrance of noxious reptiles, which could easily destroy mother and young, did not that formidable bill so effectually fill the hole. But one thing is certain, the mother hornbill is obliged to stay at home and attend to her domestic duties, although she must be very different from almost any other bird if she does not, of her own free-will and desire, hatch out her little ones and take care of them until they can look out for themselves.

If we all attended to our duties as earnestly and conscientiously as mother-birds (and sometimes father-birds too) attend to theirs, it would be better for most of us.—*St. Nicholas*.

A CATARACT THAT RUSHES UP THE RIVER.

In most rivers, as I've heard, the cataracts and rapids flow down-stream, but one of my Canadian friends sends word that the St. John River, New Brunswick, has a cataract which has a queer habit of sometimes rushing up-stream.

A little above where the river flows into the ocean, there is a wide and deep basin that empties itself into the harbor through a narrow passage between two walls of rock. When the tide is going down, the water runs out of the harbor into the ocean far more quickly than the river can flow through the narrow channel above, and so the stream pours itself seaward through the harbor end of the passage in a roaring water-fall. But when the tide is rising, the ocean fills the harbor and passage so rapidly that the sea-water plunges down into the basin from the river end of the narrow channel, in a foaming cataract that falls up-stream!

Twice in every tide, however, there is a space of about twenty minutes when the waters are at one height in the harbor, passage, and basin, and then the ships that are to go up or down must be hurried through before the river "gets its back up," as the boys say.—*St. Nicholas*.

The crowning fortune of a man is to be born to some pursuit which finds him in employment and happiness—whether it be to make baskets, or broadswords, or canals, or statues, or songs.—*Emerson*.



THE HORNBILL FEEDING HIS WIFE.

The largest species is the rhinoceros hornbill, which has a stretch of wing of about three feet, and a bill ten inches in length. The general color of this bird is black, the tail tipped with white. The bill is black at the base, reddish in the middle, and yellow tipped.

The most attractive species, as to plumage, is the crested hornbill, which has a crown of feathers like the spread crest of a cockatoo, and a long beautiful tail.

But the most interesting species is one noted, not for its plumage, but for a habit of nesting and living peculiarly its own. This is the red-billed hornbill, the *Buceros erythrorhynchus* of naturalists. We

up the hole, feeds the female through this slit until the young are hatched and fledged—a period of eight or ten weeks. In this time the female has become very fat, and is often hunted out and eaten by the negroes of the country, who esteem her a great delicacy.

Sometimes the female hatches out two young ones, that are nearly able to fly before the other two appear. Then, with the two older birds, she leaves the nest and walls in the younger ones, which are fed, through the slit, by their father and mother until able to take care of themselves.

Many writers have speculated upon the reason for this peculiar style of hatching out and bring-