

THE CHILDREN'S ENCYCLOPÆDIA

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VOLUME TWO

WHAT THIS STORY TELLS US

WITH a generous hand Nature strews the whole earth with food. That which is useless to one creature may be the one thing needed by another. But to gain its food an animal must perform useful service. The fierce rhinoceros, tearing through the undergrowth, lets light and air into the forest. The hippopotamus, browsing on the vegetation that grows in the water-courses, keeps the channels open so that rivers may flow freely and not flood and ruin the land about them. The tall acacia tree is no good as food to the short-necked animals, but it is life to the giraffe. Ants perform good service in the world, but they become so numerous that they are a plague to mankind; and therefore we have strange animals that live by eating ants. In this story we see how curious monsters have their service to perform. They are Nature's outposts, placed, as it were, to keep open the way for man.

SOME VERY STRANGE BEASTS

THIS is our last story about the animals that live on the land. Afterwards we go to the animals that live in the sea, to the reptiles and birds and insects. For this story we have some of the strangest animals in the world. Later we shall have to go over some of our old ground and get to understand how science has been able to trace the plan of Nature with regard to her family. That will interest the boys and girls who write asking how the animals that we know to-day came to be so very different from what they once were.

Naturally they are puzzled by the disappearance of the terrible giants which formerly lived, and by the growing up of types utterly different from those which in the long ago had the globe to themselves. We shall see in time. We shall try to understand how it was that while in England we had rhinoceroses bigger than those now living, others in different parts of Europe grew so small as to be no bigger than a sheep or pig. We shall see, too, that the elephant, which was once the towering giant of England, wasted away in Europe to the size of a Shetland pony.

Even here we must have a glimpse of family relations in the animal world to realise how the creatures of the earth came to be what they were.

CONTINUED FROM 923

The hippopotamus and the rhinoceros are the biggest animals in the world, except the elephant. Their bodies are nearly as large as that of the elephant, but their legs are shorter. Remember their great size, then you will see how wonderful it is that their distant cousin is the hyrax.

The hyrax, as we have read, is a little animal about the size of a rabbit, which lives in parts of Africa. It is the animal which is spoken of in the Bible as the coney. David sang: "The high hills are a refuge for the wild goats, and so are the stony rocks for the coney." That is a little animal living among rocks and mountains, yet it is related both to the hippopotamus and the rhinoceros. Its teeth, though small, are shaped like those of the hippopotamus, and it is the link between this great animal and the rhinoceros, the elephant, the tapir, and the horse!

Fancy a horse or an elephant or a rhinoceros living in a rocky hole in the ground as the hyrax does! Of course, that is impossible. But all these animals came from the same stock originally, and the little hyrax, with teeth like tiny copies of the hippopotamus, has still the feet of a very tiny tapir, or a still tinier rhinoceros. The hyrax has never lived in England, so far as we have

been able to discover; but perhaps it was on its way here when some great change in climate stopped it, for its remains are found in the rocks of European countries.

TIGERS IN THE ENGLISH JUNGLE AND HIPPOPOTAMUSES IN THE THAMES

Its bigger relations all had their home here. What a picture that presents to the mind! There were tigers in the jungles of England, there were rhinoceroses in the swamps and tangled weeds, and great herds of hippopotamuses sported in the Thames. And man, a poor, puny savage, was here, living in caves, with only the skins of animals to cover himself. We cannot say how long ago this was, but it was many thousands of years. The rhinoceros that the very ancient Britons used to see here was larger than any now living. There were two or three sorts. One of them had two horns, the other had none.

There is a two-horned rhinoceros living to-day in Africa very similar to the two-horned one which lived in England. Both these varieties lived in England before ever man appeared here. The sort which kept man company in the land was the huge woolly rhinoceros. It had a great horn upon its nose five feet long, and was much bigger than any living rhinoceros. Nowadays the rhinoceros lives, when wild, only in Africa and Asia. The Indian rhinoceros has only one horn. The African rhinoceros has two horns; and there is a smaller type called the hairy-eared rhinoceros, which lives in Burmah. The two sorts in Africa are called white and black, yet both are greyish-black in colour. There is no such thing as a white rhinoceros, any more than there is a white elephant. But the African rhinoceros is said to look almost white when the sun shines on it.

If you look at page 35 you will see some old French drawings of what are supposed to be elephants. You will see at once that they are only the size of tapirs, and that the legs are wrongly drawn. The hind legs, for instance, are

drawn turning outward like a dog's instead of forward like a man's. There is just as strange a drawing of a hippopotamus, which is shown eating a crocodile, although the rhinoceros and the hippopotamus are both vegetable feeders.

But vegetable feeders can be fierce as well as the meat-eaters. There is nothing in the world more savage than a bad-tempered rhinoceros. Every now and again it seems to go mad. The sight of a man will nearly always make it angry; and if he wounds it, then the great beast will rush at him with such speed that even a fast horse is hard pressed to carry the hunter out of danger. If it catches him, the monster will toss and gore a man to death and trample his body to pieces. Even when not provoked in this way the rhinoceros has fits of passion. Suddenly it will cease feeding and rush at a tree or a bush, and rage until it has torn the bush to pieces or gashed the trunk of the tree through and through. If there should be a man sheltering in the tree, the rhinoceros will try and tear it to pieces so as to get at him.

Its power for mischief lies in its horn, or horns. These grow up from its enormous snout. The horn is not solid bone

like the horn of other animals, but a mass of densely pressed hair or fibre, grown solidly together. It answers the same purpose as horn, but it is even stronger. It is wonderfully supported. It does not grow out of the bone of the animal's head, as other creature's horns grow, but grows up from the skin itself, and a gash from a sharp knife will remove it from the skin.

HOW THE RHINOCEROS IS ARMoured AGAINST ITS ENEMIES

Under the base of the horn the bone of the rhinoceros's head is enormously thick and arched, so that it may bear the heavy pressure which is brought to bear when the animal gives way to one of its fits of rage, and charges at some great tree. If it were not arranged like this, the beast, when thus charging,



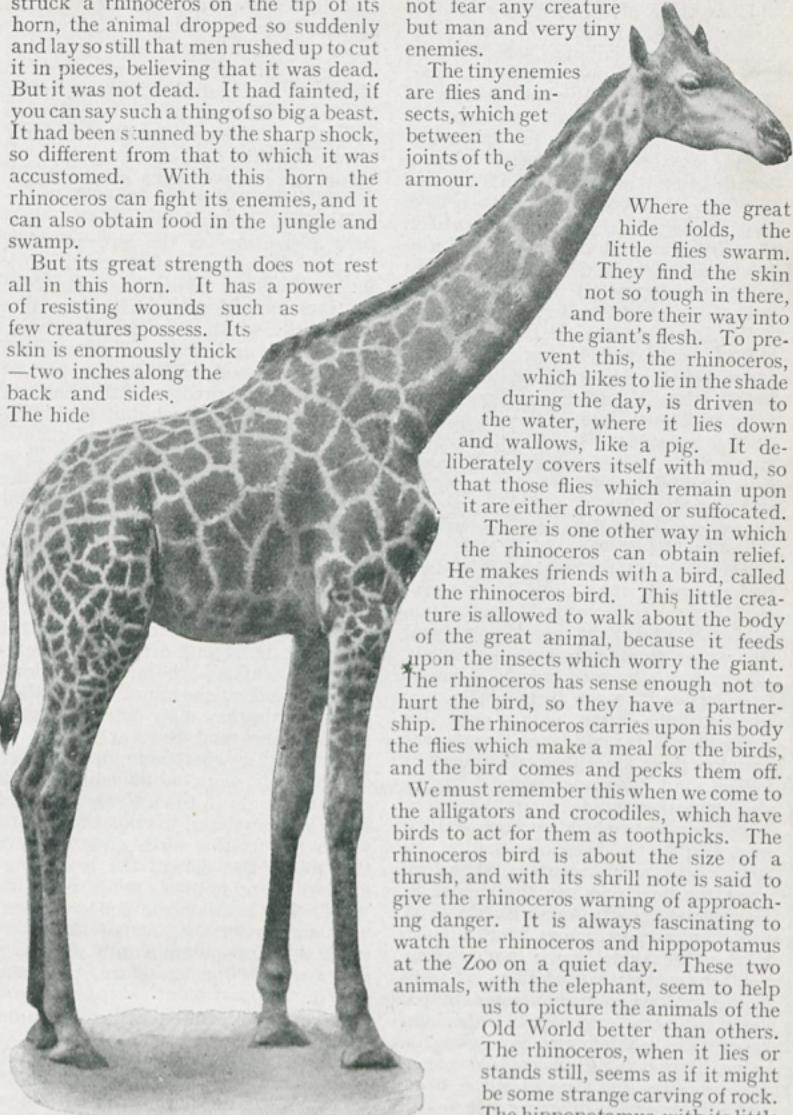
Though the hyrax is only a little animal, it is really a first cousin to the rhinoceros, and has hoofs instead of claws on its toes.

would stun himself or smash his skull. It can stand any amount of pressure in a charge; but once, when a rifle bullet struck a rhinoceros on the tip of its horn, the animal dropped so suddenly and lay so still that men rushed up to cut it in pieces, believing that it was dead. But it was not dead. It had fainted, if you can say such a thing of so big a beast. It had been stunned by the sharp shock, so different from that to which it was accustomed. With this horn the rhinoceros can fight its enemies, and it can also obtain food in the jungle and swamp.

But its great strength does not rest all in this horn. It has a power of resisting wounds such as few creatures possess. Its skin is enormously thick —two inches along the back and sides. The hide

lies in great folds, and looks like armour. And it really is armour, which Nature has given it. Therefore it need not fear any creature but man and very tiny enemies.

The tiny enemies are flies and insects, which get between the joints of the armour.



The beautiful giraffe is by far the tallest of all our land animals. Some specimens measure 18 feet from the top of the head to the ground. The colour of the giraffe, which lives in Africa, is a reddish white with dusky spots of large size. Its favourite food consists of the leaves and young twigs of trees.

Where the great hide folds, the little flies swarm. They find the skin not so tough in there, and bore their way into the giant's flesh. To prevent this, the rhinoceros, which likes to lie in the shade during the day, is driven to the water, where it lies down and wallows, like a pig. It deliberately covers itself with mud, so that those flies which remain upon it are either drowned or suffocated.

There is one other way in which the rhinoceros can obtain relief. He makes friends with a bird, called the rhinoceros bird. This little creature is allowed to walk about the body of the great animal, because it feeds upon the insects which worry the giant. The rhinoceros has sense enough not to hurt the bird, so they have a partnership. The rhinoceros carries upon his body the flies which make a meal for the birds, and the bird comes and pecks them off.

We must remember this when we come to the alligators and crocodiles, which have birds to act for them as toothpicks. The rhinoceros bird is about the size of a thrush, and with its shrill note is said to give the rhinoceros warning of approaching danger. It is always fascinating to watch the rhinoceros and hippopotamus at the Zoo on a quiet day. These two animals, with the elephant, seem to help us to picture the animals of the Old World better than others. The rhinoceros, when it lies or stands still, seems as if it might be some strange carving of rock. The hippopotamus, with its little eyes and ears, and its enormous body, helps the mind to picture the monsters of the dim old days when human life among such

frightful monsters as then possessed the earth would have been almost impossible.

If we think of the reindeer and other Arctic animals which lived here, then look at the hippopotamus, which has its home only in blazing hot Africa now, we can understand what changes of climate this land of ours has seen. If the hippopotamus were set up on legs as big as those of a horse, what a terrific beast it would be! Its legs are so short that you can hardly believe that the height of the animal is a little over five feet. It has an enormously thick, oily skin, and beneath the skin is a great layer of fat, which keeps the animal warm in the water.

We do not wonder that such an animal can walk under water, though we feel surprised, perhaps, that it can hold its breath when down below for more than ten minutes at a time. It seems natural that such a monster should sink when it goes into the water, but so marvellously is it adapted to its life that it can swim and dive like a fish.

WHY THE HIPPOPOTAMUS CAN STAY SO LONG UNDER THE WATER

The reason that it can remain so long under water is that it has the power to close its nostrils so that it can retain its breath, and at the same time prevent the water from entering its nostrils. When it comes up to breathe it seems to delight to blow the air just below the surface of the water, with a noise like a fog-horn. In its natural state the hippopotamus loves the company of its fellows, and twenty or more are to be seen together sporting in the rivers. Woe to the boat which ventures in their way. Upon the least provocation, or even without provocation, they will upset the boat and kill the men in it. Their great mouths open like caverns, and they have enormous teeth of such hard, unbreakable ivory that scarcely anything can withstand them.

A baby hippopotamus was captured in the Nile some years ago to be brought to our Zoo. While this was going on a big hippopotamus dashed at a man who was sitting at the end of the boat, and with one snap of its terrible mouth bit him right in two at the waist. The young hippo mentioned here was not the first to come to England. The first was a young one caught in Egypt,

in the Nile, and seen for the first time in London in 1849. It was the first time that a hippopotamus had set foot in Europe since the days of the Roman Empire, when great conquerors used to exhibit them after some big victory. The first one to come to England was called Obaysch, after the island in the Nile where it was caught. It lived at the Zoo for thirty years, and then died of old age.

HOW THE HIPPOPOTAMUS SAVES THE RIVERS FROM BEING CHOKED UP

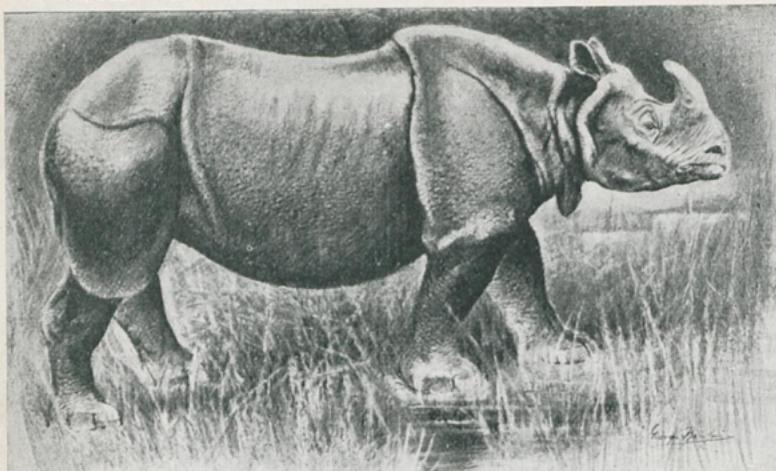
You will want to know what purpose such a creature as the hippopotamus serves. It has done important work for geography. With its vast teeth it tears up and eats the great plants and weeds which grow in the rivers. It goes up and down a watercourse in search of food, and acts the part of one of Nature's dredges. If it had not been for the hippopotamus the rivers of Africa would have been choked with vegetation, they would have overflowed their banks and flooded the country round about. Therefore, instead of swift rivers, flowing in proper channels, the water would have run far and wide, making the country round about one vast swamp.

But the hippopotamus is not always man's friend. Where men cultivate the land near the haunts of the hippopotamus the animals go forth sometimes at night, and eat the crops. With their great mouths they mow down the crops as if scythes had been at work. It is another case where animals have been doing man's work until man himself appeared to do it, to cultivate the land in his own way, and to reap the reward which the fruitful earth gives to him that toils. But though the hippopotamus which raids men's fields must be killed, that is no excuse for cruel men who, simply for the love of slaughter, track the hippopotamus into the wilds where no fields or crops are, and there slay it.

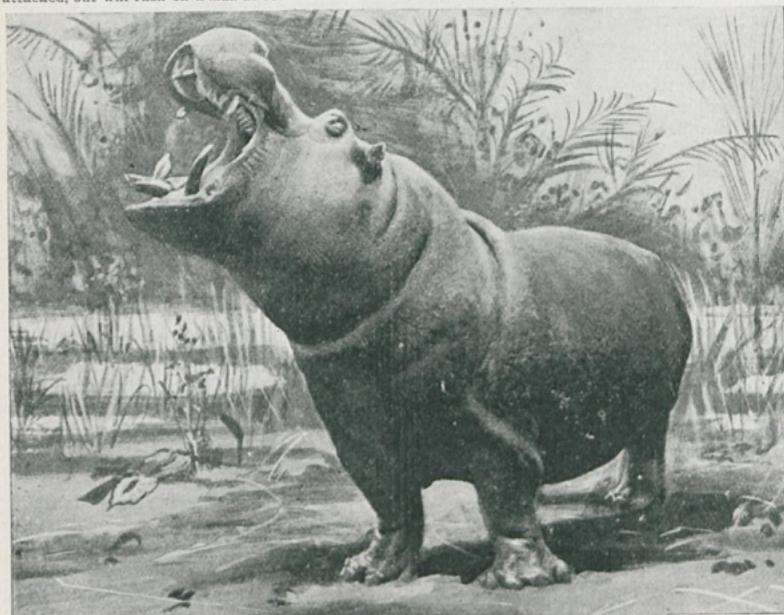
THE GIRAFFE, THREE TIMES AS HIGH AS A TALL MAN

One of the houses at the Zoo which we are always anxious to visit is that in which the giraffes live. No matter how carefully the giraffe may be described, and no matter how good the photographs, its extraordinary appearance cannot be realised unless the animal

THE GIANT ANIMALS OF TO-DAY



The rhinoceros is perhaps the ugliest of all our big animals, and can always be recognised by the curious horn that grows on its nose. Some rhinoceroses have two horns and some only one. These animals live wild in Africa and Asia, and they are extremely savage and bad-tempered. The rhinoceros does not wait to be attacked, but will rush on a man as soon as it sees him. The horn is not bone, but hair grown solidly together.



The hippopotamus is one of the largest land animals, being often as large as an elephant, though its legs are much shorter. It lives in Africa, and spends most of its time in the water. It is able to remain below the surface for as much as ten minutes at a time. It has the power of closing its nostrils so that it can keep in its breath and also prevent the water from entering. Its great mouth opens like a cavern and it has enormous teeth of hard ivory. It has very short legs in proportion to the rest of its body.