SKETCHES AND ANECDOTES

OF

ANIMAL LIFE.

SECOND SERIES.



BY

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the elephant, and return to my note-book very many anecdotes, descriptions, and illustrations, which I had originally intended to have given. The account has already taken twice the quantity of space which I have given to any other animal, and in order to find room for the history of other creatures, I will now close with the last words of our learned friend Johannes Johnstonus.

"But what we may judge of them may be collected out of Libavius de Intellectu Bestiarum. They seem also to hold a sympathy with the Moon; for when the Moon after Conjunction begins to appeare again, they crop boughs from Trees, and hold them up, and looking toward the Moon, they shake them. They may seem to supplicate her deity. But I say no more."

THE RHINOCEROS.

SIX species of this strange animal are known to naturalists, and four of them are in the British Museum, namely, the One-horned Indian Rhinoceros (Rhinoceros unicornis), the Rhinaster, or Two-horned African Rhinoceros (Rhinoceros bicornis), Sloane's Rhinoceros, or Keitloa (Rhinoceros bicornis), Sloane's Rhinoceros, or Keitloa (Rhinoceros keitloa), and the White, or Burchell's Rhinoceros (Rhinoceros simus). The other two species are the Javanese Rhinoceros (Rhinoceros Javanus) and the Sumatran Rhinoceros (Rhinoceros Sumatranus). The Keitloa and White Rhinoceros are both inhabitants of South Africa.

I do not intend in the following pages to separate the account of one of these animals from that of another, but merely to relate anecdotes and give descriptions of them without observing any strict rule of science.

It is imagined, with great probability, that the rhinoceros, that is, the one-horned Indian rhinoceros, is the unicorn of the scriptures. The Hebrew word—Reem, is translated in the Septuagint version

by a Greek word, Μονοκέρως, signifying one-horned, and exactly corresponding with the Latinized form Unicorn. The reader must not confuse the heraldic unicorn, who was driven by the lion all about the town, with the word unicorn, which merely signifies one-horned, and might apply quite as well to the silkworm as the rhinoceros, for neither the horn of the silkworm or the rhinoceros are true horns.

The heraldic unicorn, in all probability, derived its origin from the discovery of a narwhal's tusk, which, being elegant in form, and evidently a horn or a tusk, was immediately supposed to belong to the unicorn. The existence of the horn was then shewn to be a good proof of the existence of the creature itself, in which every one believed, with the exception of one or two malcontents, of whom Topsel speaks with un-

mitigated contempt.

"Likewise in the city of Zeila, of Æthiopia, there are kine of purple colour, as Ludovicus Romanus writeth, which have but one horn growing out of their heads, and that turneth up toward their backs. Cæsar was of opinion that the Elk had but one horn, but we have shewed the contrary. It is said that Pericles had a Ram with one horn; but that was bred by way of prodigy, and not naturally. Simeon Sethe writeth, that the Musk Cat hath also one horn growing out of the forehead; but we have shewed already that no man is of that opinion beside himself. Ætianus writeth that there be Birds in Æthiopia having one horn on their foreheads, and therefore are called Unicornes; and Albutis saith there is a fish called Monoceros, and hath also one horn.

"Now our discourse of the Unicorn is of none of these beasts; for there is not any vertue attributed to their horns, and therefore the vulgar sort of infidel people, which scarcely believe any herb but such as they set in their own gardens, or any beast but such as is in their own flocks, or any knowledge but such as is bred in their own brains, any birds which are not hatched in their own nests, have never made question of these; but of the true Unicorn, whereof there were more proofs in the world, because of the nobleness of his horn, they have ever been in doubt; by which distraction it appeareth unto me that there is some secret enemy in the inward degenerate nature of man, which continually blindeth the eyes of God his people from beholding and believing the greatness of God his works."

The actual possession of the so-called horn was an irresistible proof, even to the benighted people who refused to believe without seeing, and no few enthusiasts travelled long distances in order to see and handle for themselves the celebrated unicorn's horn.

The principal peculiarity in the horn of the unicorn is its position on the forehead—a formation which is found in no other animal, and therefore formed the most valid objection in the mouth of the unbeliever. But any one who will examine the skull of a giraffe, will see that in the centre of the forehead there is a projection occupying precisely the position of the horn of the fabulous unicorn, and only differing in length from the two hornlike, hair-tipped projections which are seen on its head, in the place occupied by horns among the horn-bearing quadrupeds: so that if the objectors had been a little more acquainted with comparative anatomy, or rather comparative osteology, they might have had even their valid grounds of incredulity shaken.

On a casual glance at a rhinoceros, the horn is the first object which strikes the eye. This projection is not a horn, but only a growth from the skin, and looks, when cut crossways, like a congeries of hairs; and if the hair be chafed towards its root, it will split up into innumerable filaments much resembling coarse horse-hair, and bearing a close similarity to the whale-bone fringe of a whale's mouth.

Under the microscope a section of rhinoceros-horn presents a most beautiful appearance, and even this can be closely imitated by tying a tuft of hairs tightly together, soaking them in fine glue, suffering them to cool until they form a kind of rod, and then cutting a section like that of the rhinoceros-horn. If either of these preparations be examined with polarized light,

the colours are gorgeous in the extreme.

Even in South Africa the horn of the rhinoceros is very valuable, as it can be cut into knobbed sticks which will stand almost any treatment without breaking. This property renders it especially useful for ramrods, as it is far stronger than wood, and possesses all the good properties of iron or steel without its weight or propensity to bend or break. I have seen a ramrod nearly four feet in length which was cut from a rhinoceros's horn.

The power of the horn is terrific, and its efficacy has been found in several disastrous incidents. Both the African and Asiatic species are liable to sudden and unaccountable fits of anger, during which the animal will rush at any object that is near him, whether animate or inanimate, and dash it to pieces. One remarkable instance of this propensity took place at Dinapore. Some officers had gone down to the river for shooting, and had formed a small encampment by the river. Reports were rife of a neighbouring rhinoceros; but they took no particular heed, for natives are seldom very truthful, and retired to rest with no fear of danger. One morning, just as they were about to rise, a great commotion was heard; and on running out to see what was the matter, they found that a rhinoceros was attacking their horses, and goring them violently. The poor horses being fastened, according to custom, by head and heel ropes, were not able to resist or escape; while the natives, according to their custom, had all run away, and hidden themselves in a neighbouring jungle.

There was, however, little blame to be attached to them; for when the rhinoceros, after venting its rage on the poor animals, turned upon their masters, they, too, took to their heels, and thought themselves fortunate in finding a tree, up which they scrambled, and were for the present secure. The rhinoceros. however, watched them for a long time, in hopes that they would descend: but on the rising of the sun, he slowly retreated into his haunts, every now and then casting an angry look over his shoulder. The brute was afterwards killed by a native hunter, who concealed himself near its hiding-place, and shot it with an iron ball from a jingall or matchlock, which carries a very large bullet, and is generally used by the natives for destroying the rhinoceros and other wild beasts. The hunter conceals himself near some place where he knows the animal will pass, and, resting his gun on the fork of a branch, he gets a steady aim, and is very seldom required to fire a second shot.

When the terrified gentlemen came down from their tree, they went to see what harm the rhinoceros had done, and found several of their horses fearfully gored. One poor animal was saddled at the time; and the horn of the rhinoceros had penetrated through saddle-flap and padding, fractured two ribs, and made an aperture through which a small hand might be

passed into the horse's lungs.

Sometimes the rhinoceros attacks inanimate objects, such as bushes or little trees, and assaults them in the most violent manner, not leaving them until he has broken them to pieces. Ploughing up the ground with the horn is also a favourite mode of expressing

rage.

The rhinoceros is an animal of nocturnal habits, and generally remains quiet during the day, either lying asleep in the shade, or standing indolently under the shelter of the trees. At night, it issues from its haunts, and generally wanders over a large extent of country before the sun rises. It usually visits its drinking-place between nine and twelve at night; and at such times it can be attacked with comparative security.

The horn has many other good qualities, and, like many other good things, has had qualities attributed to it which it does not possess, while many have been omitted which really belong to it. It is rather remarkable that one of these superstitions is common both to Africa and India, and extended at one time all over Europe as well as Asia. It was firmly believed that if drinking vessels were made of the horn of the rhinoceros, they were infallible detectors of poison, and that if poison were poured into them, the liquid would effervesce and boil over the sides of the cup, while the cup itself will turn black.

It was also thought that if such a cup was constantly used, it would tend much towards strengthening the health of the individual who used it, and if the recipient wished his draught to be particularly powerful, he stirred it up with a piece of iron, an old rusty nail appearing to be the most efficacious mode

of applying cold steel inwardly.

The surface of the horn is generally polished by use, especially towards the point, but towards its root it is rough and uneven. The weight of it is very great, even when it has been preserved in a dry room for many years; for the substance of it is very

compact.

In order to support this weight under the disadvantage of two leverages, the first being its own length and the angle at which it is placed in the head, and the second being the distance of its base from the neck, there must be some structure of great strength. Moreover, the horn is constantly employed in ploughing up the ground, either in sport, fear, or anger, in forcing a way for the animal through dense forests, and, if accounts may be believed, in actually ripping up the trunks of the softer trees. The creature is able to lift a horse from the ground with his fearful weapon, and can toss a man about as if he were a doll in the hands of a child. In the older times, the Romans sometimes indulged themselves

with the sight of combats between various wild animals, among which were more than once introduced fights between a rhinoceros and some bears. An old Latin poet, in his description of the scene, represents the rhinoceros as tossing the bears into the air as easily as a bull tosses the wicker hurdles that are thrown at him to excite him to rage.

For the mere support of so great a weight there must necessarily be a sufficient support, and much more is such a structure necessary when we reflect on the

work which is done by this weapon.

Accordingly, if we examine the skull of a rhinoceros, we shall find that just under the place where the root of the horn lies, there is a peculiar development of the bone on which the weight of the horn rests. Now, it is well known that of all forms intended to support great weight, the arch is the strongest. Such, then, is the form of the bone which supports the horn; and in order to prevent the jar on the brain which would probably injure the animal when making violent strokes with the horn, one side of the arch is left unsupported by its pillar; so that the whole apparatus presents the appearance of a strong bony spring, which, although very powerful, would yield sufficiently on receiving a blow to guard the animal from the shock which would occur, were the horn to be placed directly on the skull. Such a structure as this is not needed in the case of the elephant, as that animal never strikes violently with its tusks, as the rhinoceros does with its horn.

That such is the intention of the structure is well shown by a curious circumstance that took place during a rhinoceros-hunt, and which shows that the animal can suffer severely from a blow on the horn, if that blow is given in a different method from that which the creature is in the habit of enduring.

Some hunters were engaged in the pursuit of the rhinoceros, and had roused one of the animals from the thicket in which it was engaged in rubbing itself against the trees, after the usual fashion of the creature.

The skin, although thick, is very sensitive between the folds, and suffers much from the attacks of mosquitoes and the flies. In order to guard as much as possible against these tiny foes, the rhinoceros is in the habit of wallowing in the mud, which dries upon the skin, and fills up the folds so perfectly, that neither proboscis or sting can penetrate. This defence lasts for some time; but when the mud becomes perfectly dry, it cracks and falls off the skin, especially in the parts that are near the joints, and leaves the vulnerable places exposed. These the fly attacks, and causes such irritation that the persecuted rhinoceros is forced to relieve itself by rubbing against a tree. It has a curious custom of grunting loudly while performing this operation, and thus guides the hunter to its place of refuge. They are thus enabled to steal through the underwood unperceived, as the animal is too much engaged in rubbing his sides to pay any attention to sounds which would at any other time send him off in alarm. By crawling along the ground, after the · manner of serpents, they generally contrive to inflict a mortal wound before he is aware of their presence.

In the present case, the hunters were endeavouring to act in the same manner, but the intended victim became alarmed, broke through the wood, and made the best of his way towards a large cane-brake about two miles distant. The whole party pursued him, and the poor animal was speedily converted into a living pincushion, the place of the pins being supplied

by spears.

The number and severity of the wounds appear to have confused his intellects, for instead of keeping his straight course toward the canes, he turned off short, and dashed into a narrow gully without any exit. The ravine was so narrow that he broke to pieces many of the protruding spears as he rushed in, and when he

had fairly entered, there was barely room to turn. The assailants now had it all their own way, and one of them standing on the brink of the ravine took aim at his head, and stretched him on the ground apparently lifeless. All the hunters now jumped into the ravine, and set to work at cutting him up. But scarcely had they commenced, when the animal recovered from his wound, and struggled upon his knees. Out went the hunters as fast as they could, and had it not been for the presence of mind of one of them, who hamstrung the rhinoceros before he ran away, in all probability several of the men would have forfeited their lives.

Curiosity induced the hunters to search for the wound that had thus stunned the animal, and they naturally expected to find the track of a ball through the brain, or, at all events, a wound on the skull; but after some search they found that the ball had only struck the point of the foremost horn, and had carried off about an inch of it.

This is a very curious circumstance, because the blow was comparatively a slight one, and the shocks which the animal inflicts upon itself in the daily occurrences of life must be very severe indeed. But the whole structure of the head and horn is intended to resist heavy blows, while it is not capable of sustaining a sharp, smart shock without conveying the impression to the brain.

The rhinoceros does not figure very much in fable, principally because its habits were not sufficiently familiar to the generality of people. There is, however, one rather curious fable, which I have selected from Æsop's and other fables written by L'Estrange, a writer whose racy quaintness of language is always very entertaining:—

"There pass'd a Challenge betwixt an Elephant and a Rhinoceros; Time and Place appointed, and both ready for the encounter. 'How come you,' says the Rhinoceros, 'that are a Beast, to take upon you

the handling of a Sword, which is a Weapon peculiar to Man? And then again, how come you to consult the Starrs about the Succession of Empires, and to write down the Revolutions in Magical Letters upon the Sand?' 'Well,' says the Elephant; 'the skill of managing a Sword is no Crime, I hope, unless it be one to defend my Country. And then for my looking up to Heaven, 'tis no more than we all do, Morning and Evening, in Acknowledgement of the Benefits we receive from above. And so for my writing with my Trunk upon the Sand, it may serve to inform you, that we are capable of discharging even the nicest of Humane Offices. This not either to decline or delay the Combat.' And so they both stood to their Arms, the One advancing his Trunk, and the Other his Horn. While they were now coming to the very Push, they found themselves surpriz'd upon the Sight of a Frog and a Mouse that stood drawn hard by there, and ready to engage. 'Pray be soft a little,' says the Rhinoceros; 'and before we go any further, let us understand the meaning of this Quarrel here.' Now the Subject of the Dispute, it seems, was only which was the most Beautiful Creature of the two, the Frog or the Mouse. Now the Case was so Ridiculous, and the Example so Scandalous, that the very Shame of Playing the Fool after such a Copy, made them Friends again."

The older European naturalists had very strange ideas of the rhinoceros, and some very vague notions of its external appearance and natural habits. That their conception of its form should be erroneous is quite excusable; for the only idea that they could form of it was derived from a sketch taken from a living specimen at Lisbon. But the artist who drew the sketch is much to be execrated for the perpetration of so much error. The sketch was sent to Albert Durer for engraving, in order to be inserted in Gesner's great work on Natural History. An impression of the identical engraving is now before me, and I will endeavour

to describe it for the benefit of my readers. I would have made a reduced drawing of it, only the complexity of the parts is so very great that it would be nearly impossible to give an accurate version in so small a space.

The engraving is nine inches and a quarter in length by six inches and a quarter in height, counting the length from nose to tail, and the height from shoulder

to ground.

The horn is covered with tubercles pointing upward, and appears to consist of distinct plates. On the centre of the shoulder is a short horn, twisted like that of the narwhal, and pointing forward. The body is covered with a kind of plate-armour, very like that which was worn at the period, especially for the fastdying sport of tilting. A very large plate hangs over the back, something like a saddle, and is ornamented by eight protuberant ridges, which look as if a giant with very slender fingers had spread his eight-fingered hand as widely as possible, and left it on the creature's The shoulder-joint is defended by a plate that descends from the top of the shoulder, swells out at the junction of the leg with the body, and nearly reaches the knee. This plate plays upon a rivet, which joins it to the large plate that guards the neck, and from which projects the little horn.

The hinder parts are covered by a huge plate of indescribable form, as it shoots out into angles, develops into sharp ridges, and sinks into deep furrows in every imaginable way. It bears a distant resemblance to the beaver or front of a helmet, which could be

lifted or lowered at pleasure.

The legs are clothed in scale-armour, with a row of plates down the front of each, and a rivet is inserted in the centre of each plate. The abdomen and each side of the mouth is defended in the same manner. The throat is guarded by a series of five overlapping plates, so as to allow the animal to move its head with freedom, while, at the same time, no part of the

throat is left without defence. The feet are tolerably correct, and the artist has got the proper number of toes, each of which is very rightly enclosed in a small hoof. The whole outline is sufficiently good, and is drawn with a vigour that only increases our surprise at the exceeding untruthfulness of the details.

My conviction is, that the artist employed for the work was fully impressed with the idea that the intended readers of the work would be grievously disappointed if they did not meet with that "hog in armour" which travellers had led them to expect, and that he therefore was not possessed of sufficient strength of mind to draw the creature as it really was. There can be no doubt of his ability to do so, for, in spite of the ludicrous adornments with which he has decorated his sketch, the outline is far from bad, while the slouching attitude and dogged obstinacy of the rhinocerine character are hit off exactly.

I believe that the artist must have sketched his outline from life, and filled up the details at home, with a mind equally balanced between the tortoise and the armourer; for the legs, and one or two other portions, are evidently taken from those of a tortoise, while the really admirable talent which he has shown in causing the pieces of his apocryphal armour to play upon each other with perfect ease, proves him to be quite a connoisseur in the armourer's art.

But, although we may smile at such absurdities, the structure which led to them is sufficiently curious to afford a better pretext than can be found for many worse errors. The skin of the Indian rhinoceros, which for very many years was the only species known to naturalists, is enormously thick, and lies in heavy folds over the body and upper part of the limbs, so as to bear a remote resemblance to that armour with which our artist-friend so liberally clothed it. The folds of skin that fall from the neck and throat might, at a distance, be taken for plates of armour; the great mass of skin which hangs from the shoulder bears

some resemblance to the rivetted plate that I have mentioned; and the same may be said of the folds that cover the hinder quarters, while the gauntleted appearance of the legs is so arranged as to be easily taken for scale-armour by an individual who, like the Marchioness, could make believe very much indeed, and who had such excellent reasons for doing so as "our artist" of the sixteenth century.

So that the only really gratuitous and unfounded error is the supplementary horn on the shoulder, for the insertion of which certainly no excuse can be found.

The colour of the skin is a very dark brown, in some places inclining to pink, something like that of the hippopotamus when it is yet young. Its hardness of texture, although anything but pleasant when a man only armed with a blunt spear is opposed to a savage rhinoceros, is very useful when the skin is meant to defend the biped instead of the quadruped. The natives of those countries where the rhinoceros lives very properly judge, by a process of inductive ratiocination, that the skin which will preserve the interior of a rhinoceros from the unwelcome visits of their spears may, when taken off the animal, perform the same office in guarding their interiors from the spears of their enemies. Accordingly, the skin of the rhinoceros is in great request for shields, and by careful tanning and drying forms an excellent defence, as it becomes nearly as hard as horn, and is as perfect a safeguard against a spear or an arrow as a shield of horn would be.

The skin has great powers of self-healing. Some years ago, a rhinoceros dislocated a joint of his leg, from which accident he subsequently died. For some time, endeavours were made to heal the injury by making sundry incisions over the joint, and it was invariably found that the wounds had healed in the course of twenty-four hours. This is the more remarkable, as the state of inflammation with which the parts

about the joint must have been affected would necessarily render the wound less liable to be healed.

There is abundant evidence to show that our country was once inhabited by more than one species of rhinoceros, as their bones are to be found in plenty in almost every bone-cavern in England, as well as in several parts of Europe. These osteological caverns are very singular objects, and of very great use to the geologist. In them the bones of various kinds of animals are found in profusion—those of the elephant, rhinoceros, hippopotamus, and hyæna being the most plentiful. As the bones of the three former animals are found to be marked with the teeth of the hyæna, it is evident that at some time the latter animal must have preved on the former. and dragged their carcases, or parts of them, into their caves, where they could devour them in peace. In order to be quite certain that the tooth-marks on the bones were really made by the hyæna, certain experiments were made. Bones of large animals were given to the hyænas in the menageries, and then compared with those found in the bone-caverns. It was then seen, that not only did the tooth-marks on the joints of the bones correspond, but that the living hyænas actually broke up the centres of the bones into splinters which exactly tallied with the fragments that were discovered in the caverns. the Geological Museum, at Oxford, there are specimens of these recently fractured bones laid by the side of the fossil fragments; and were it not that the latter are dark with age, while the former still retain their whiteness, it would be impossible to distinguish which had been broken thirty years ago, or which had passed through the jaws of beasts since whose death possibly ten times as many centuries had elapsed.

Like all other animals, the rhinoceros is not seen to advantage in a menagerie. In the first place, it either becomes tame or furious, and is by both of these characteristics altered from its natural state; for in its native woods, it is a restless, wary, mudcovered brute, plunging into the midst of thick tangled brakes, and making its way through them with evident pleasure; generally harmless until pursued, but sometimes charging at nothing with all the impetuousness of blind fury; while even in the best of our menageries, such as the Zoological Gardens, its movements are constrained, and the spectator cannot observe the habits of the animal, such as would be exhibited in its native land. When the poor animal is confined in a cage little larger than itself, and without the smallest opportunity of exercise, it naturally becomes much altered in look: it loses all the alertness of its character, and either remains huddled up in sullen obstinacy, or descends to the amusement of slapping its lips together, in order to attract the attention of bystanders, and to get a few cakes or apples. Poor rhinoceros!

The horn, too, is never seen properly developed in a captive rhinoceros; for even were it not worn off and kept down by the constant rubbing which it suffers against the bars of its prison, the keepers would never suffer it to remain intact, lest the animal should use it mischievously. I was once shown a horn, about two feet in length, which was said to have been cut from the head of the rhinoceros over whose head it was suspended. But I rather doubt the truth of the statement; for it was made by a keeper in a travelling menagerie, a class of persons who are not generally very careful as to the accuracy of their remarks; and I could not divest myself of the idea that the horn was that of an African rhinoceros, although the animal

in the cage was from India.

The Javanese rhinoceros is not so stumpy in appearance as the Indian animal, and does not possess the enormous folds of skin which are so distinguishing a characteristic of that animal. One of these animals was taken alive in the province of Keddu, and conveyed in a cart to the capital, Surakarta. While here,

it was seen by Dr. Horsfield, who had many opportunities of watching its movements, and who gives the

following interesting description of it:-

"I saw it during its conveyance, and found it perfectly mild and tractable. At Surakarta, it was confined in the large area or square which bounds the entrance to the royal residence. A deep ditch, about three feet wide, limited its range, and for several years it never attempted to pass it. It was perfectly reconciled to its confinement; and never exhibited any symptoms of uneasiness or rage, although, on its first arrival, harassed in various ways by a large proportion of the inhabitants of a populous capital, whose curiosity induced them to inspect the stranger of the forest. Branches of trees, shrubs, and various twining plants, were abundantly provided for its food; of these, a species of Cissus and the small twigs of a native fig-tree were preferred. But plantains were the most favourite food; and the abundant manner in which it was supplied with these by the numerous visitors tended greatly to make the animal mild and sociable. allowed itself to be examined and handled freely, and the more daring of the visitors sometimes mounted on It required copious supplies of water; and when not taking food, or intentionally roused by the natives, it generally placed itself in the large excavations which its movements soon caused in the soft earth that covered the allotted space. Having considerably increased in size, the ditch of three feet in breadth was insufficient for confining it; but, leaving the inclosure, it frequently passed to the dwellings of the natives, destroying the plantations of fruit-trees and culinary vegetables which always surround them. It likewise terrified those natives who accidentally met with it, and who were unacquainted with its appearance and habits. But it shewed no ill-natured disposition, and readily allowed itself to be driven back to the inclosure like a buffalo. The excessive excavations which it made by continually wallowing

in the mire, and the accumulation of putrefying vegetable matter, in course of time became offensive at the entrance of the palace; and its removal was ordered by the Emperor to a small village near the confines of the capital, where in the year 1821 it was accidentally drowned in a rivulet."

Mr. Gordon Cumming's experiences with the rhinoceros do not appear to have been very entertaining, as he always seems to have a great contempt for the animal, and seldom troubled himself to fire at it. Indeed, he more than once mentions, in an off-hand kind of way, that a rhinoceros would get in his path, and so he had no alternative but to throw stones at it, and drive it away.

But his account of the habits and manners of the various species is very good, and worthy of notice as forming part of the diary of one who had such constant opportunities of seeing the animal under all circumstances, whether walking calmly on the plain, or pushing its way among the trees, which yield like reeds to its weight—whether influenced by furious rage, or struck with deadly fear—whether charging at its foe in the full luxuriance of health and strength, or lying prostrate on the ground, gasping out its last breath at the feet of its pigmy enemy, but furious to the last.

It will be observed, that he, a practical man—who had too often carried his life in his hand, and trusted himself to the power of his rifle, to take any precautions that were not absolutely necessary—was forced to harden the bullets which he intended for the benefit of the rhinoceros, in spite of the savants, who tell us that leaden bullets will go quite through the animal if they do not strike a bone in their progress. Moreover, the skin of the African species is not so thick or strong as that of the Indian rhinoceros; and yet we are told that leaden bullets will traverse the body of an Indian animal, while the African species requires the bullet to be hardened:—

"Of the rhinoceros, there are four varieties in

South Africa, distinguished by the Bechuanas by the names of the 'borèle,' or black rhinoceros; the 'keitloa,' or two-horned black rhinoceros; the 'muchocho,' or common white rhinoceros; and the 'kobaoba,' or long-horned white rhinoceros. Both varieties of the black rhinoceros are extremely fierce and dangerous, and rush headlong and unprovoked upon any object which attracts their attention. They never attain much fat, and their flesh is tough, and not much esteemed by the Bechuanas.

"Their food consists almost entirely of the thorny branches of the wait-a-bit thorns. Their horns are much shorter than those of the other varieties, seldom exceeding eighteen inches in length. They are finely polished with constant rubbing against the trees. The skull is remarkably formed, its most striking feature being the tremendous thick ossification in which it ends above the nostrils. It is on this mass that the horn is supported. The horns are not connected with the skull, being attached merely by the skin, and they may therefore be separated from the head by means of a sharp knife. They are hard, and perfectly solid throughout, and are of a fine material for various articles, such as drinking-cups, mallets for rifles, handles for turners' tools, &c. &c. is capable of a very high polish. The eyes of the rhinoceros are small and sparkling, and do not readily observe the hunter, provided he keep to leeward of The skin is extremely thick, and only to be penetrated by bullets hardened with solder. During the day, the rhinoceros will be found lying asleep, or standing indolently, in some retired part of the forest, or under the base of the mountains, sheltered from the power of the sun by some friendly grove of umbrella-topped mimosas. In the evening, they commence their nightly ramble, and wander over a great extent of country. They usually visit the fountains between the hours of nine and twelve o'clock at night; and it is on these occasions that they may

be most successfully hunted, and with the least

danger.

The black rhinoceros is subject to paroxysms of unprovoked fury, often ploughing up the ground for several yards with its horn, and assaulting large bushes in the most violent manner. On these bushes they work for hours with their horns, at the same time snorting and blowing loudly; nor do they leave them in general until they have broken them into pieces. All the four varieties delight to roll and wallow in mud, with which their rugged hides are incrusted. Both varieties of the black rhinoceros are much smaller and more active than the white, and are so swift that a horse with a rider on its back can rarely overtake them. The two varieties of the white rhinoceros are so similar in habits, that the description of one will serve for both—the principal difference consisting in the length and set of the anterior horn: that of the common white rhinoceros averaging from two to three feet in length, and pointing backwards; while the horn of the long-horned white rhinoceros often exceeds four feet in length, and inclines forward from the nose.

"Both these varieties of rhinoceros attain an enormous size, being the animals next in magnitude to the elephant. They feed solely on grass, carry much fat, and their flesh is excellent, being preferable to beef. They are of a much milder and more inoffensive disposition than the black rhinoceros, rarely charging their pursuer. Their speed is very inferior to that of the other varieties, and a person well mounted can

overtake and shoot them."

It is said that the rhinoceros uses its horn as an instrument for procuring food. The animal is asserted to plunge its horn into the trunks of the softer trees, and to rip them up until the whole trunk is reduced to a series of strips or laths. These strips the rhinoceros takes up in its prehensile lips, and twists round and round, in order to get a better hold of them, much as an ox will twist a lock of hay.

I may as well mention here, that the lips of the rhinoceros, and especially the upper lip, partake in some degree of the mobility and prehensile power of the elephant's trunk. The domesticated animal is often accustomed to wait with opened mouth for apples and other little delicacies which it hopes to obtain from the visitors. If a bun, or even so small an object as a nut, is thrown towards the creature, it can catch it between its lips, which it closes with a smart slap, something like that of a soldier "standing at ease."

I have often made the rhinoceros at the Zoological Gardens rather cross by putting a piece of bun on one of the bars, and holding a stick parallel to it and The animal tried with all his might to get above it. at the bun, but succeeded no further than in pressing the stick firmer upon it. After several trials, he gave up the matter, and walked away in evident dudgeon. But it was a very good method of ascertaining the flexibility of the upper lip; for the rhinoceros tried all imaginable methods of detaching the bun from the bar, but only succeeded in pushing it off, so that it fell on the ground outside the paling, and beyond his reach. He sometimes tried to curl his lip over the stick, and so push the bun through; but that feat he was never able to perform.

It is nearly certain that we do not know all the species of rhinoceros that are at present living on the earth, although we are acquainted with six living and at least nine fossil distinct species. There are many accounts given of animals which evidently belong to the rhinoceros family, but which are not at present known to naturalists.

One of these, the Ndzoo-dzoo, as it is called by the natives, is supposed to exist north of the Mozambique. The creature is said to possess but one horn, unlike the white, the keitloa, the borèle, and the kobaoba, the latter being a rather rare species of white rhinoceros, with a very long horn that points

considerably more forward than the horn of any other

species.

Sundry most singular properties are said to belong to this animal, among which is the very peculiar faculty of being able to bend its horn when not wanted for any particular purpose. The account states, that the horn is about two feet in length; that it projects from the *forehead* of the animal; and that when the rhinoceros is asleep, the horn is quite flexible, and can

be rolled up like the trunk of an elephant.

The description proceeds to inform us, that the ndzoo-dzoo is very fierce indeed, and that he always attacks men immediately on seeing them. The eyesight of the animal is said not to be very sharp (an invariable trait in the rhinoceros family); and therefore, when a man is pursued, he takes refuge in some very thick tree, where he tries to avoid the notice of his pursuer. If he is not seen, the rhinoceros goes off satisfied; but if, unfortunately, the enraged animal should happen to catch sight of the man, he assaults the tree with his now straight and stiff horn, and ceases not from the attack until he has ripped up the trunk into laths, and felled tree, man, and all to the ground. The female is said to possess no horn.

Now, there is one rather obvious discrepancy. If the animal is so fierce as the narrative would make us understand, how does it happen that any one has been able to roll up its horn when it is asleep? However, although there are such obvious errors in this description, it is tolerably evident that there is in existence a fierce African rhinoceros, with only one horn; although it is not very likely that the horn should grow from its forehead, or be liable to rolling

up like a piece of leather hose.

There are many human beings who obtain their living by the misfortunes of their fellow-creatures. This propensity is shared by certain birds, whose livelihood appears to be principally gained by the misfortunes of the rhinoceros. These creatures are

called rhinoceros-birds, and are well described by

Cumming in the following lines:—

"Before I could reach the proper distance to fire, several rhinoceros-birds, by which he was attended, warned him of his impending danger, by sticking their bills into his ear, and uttering their harsh, grating cry. Thus roused, he suddenly sprang to his feet, and crashed away through the jungle at a rapid trot, and I saw no more of him.

"These rhinoceros-birds are constant attendants upon the hippopotamus and the four varieties of rhinoceros, their object being to feed upon the ticks and other parasitic insects that swarm upon these animals. They are of a greyish colour, and are nearly as large as a common thrush; their voice is very similar to that of the mistletoe thrush. Many a time have these ever-watchful birds disappointed me in my stalk, and tempted me to invoke an anathema upon their devoted heads. They are the best friends the rhinoceros has, and rarely fail to awaken him, even in his soundest nap. 'Chukuroo' perfectly understands their warning, and, springing to his feet, he generally first looks about him in every direction, after which he invariably makes off."

There is also a bird which performs the same office for the crocodile that these birds perform for the rhinoceros. The crocodile-birds rouse their big friend on the slightest alarm, by uttering a harsh cry, and dashing themselves against his head. The crocodile being thus roused, acts in the same manner as the rhinoceros—scuffles off, and flops into the water as fast as he can; while his intended slayer is uselessly

venting his rage on the watchful guardians.

Two of the African species of rhinoceros bear considerable resemblance to each other, although, on a close examination, the points of distinction are seen to be well marked. These are the borèle and the keitloa. The best mark of difference is to be found in the horns. Those of the borèle are always of very

different dimensions—the anterior horn being very long, and pointed; while the other is very short, and conical in shape. The horns of the keitloa are of nearly equal length, and both are long, pointed, and curved slightly backwards, the anterior being more curved than its companion. The keitloa is especially dreaded by the natives, as it is much more furious than the borèle, who appears from all accounts to be a tolerably well-mannered brute, and not so vindictive as the keitloa.

The muchuco, or muchocko, as it is called by the Bechuanas, is a comparatively harmless animal, unless excited or irritated, and is said to look more like an overgrown pig than a rhinoceros. Its skin is of a light brown, shaded off into a pinkish purple in many parts, and offers such a contrast to the dark skin of the keitloa and borèle, as to earn for it the name of white rhinoceros, although in reality it is anything but white. Both the horns of this species are placed nearer the extremity of the nose than the horns of the two black species. Like the borèle, it has one horn long, and the other very short—the anterior horn being the long one.

The other species of white rhinoceros, the kobaoba, is at once to be distinguished from the muchocho by the preposterous length of its anterior horn, which is sometimes more than four feet in length, and by the manner in which it is borne on the head. Like the horns of the muchocho, both are placed near the nose, but the anterior horn leans so far forward, that when the animal runs the horn is very nearly horizontal. This peculiarity gives it a very curious appearance, and

makes it look singularly awkward.

It will be remembered by the reader, that an elephant was found perfectly preserved by being frozen into a large mass of ice. A similar discovery is recorded of the body of a rhinoceros preserved in a mass of ice and sand on the banks of a river that falls into the Lena, in Siberia—the identical river at

whose mouth the frozen elephant or mammoth was found. As was the case with the elephant, the body of the rhinoceros was covered with dense hair, which extended over the head, and even fell over the feet. The colour of the hair was of a dusky grey, and its

length from one to three inches.

Before closing this account of the rhinoceros, I must mention a very curious little animal that not only belongs to the pachydermata, but is even found to belong to the same family as the rhinoceros. This is the Hyrax, a little creature that closely resembles a rabbit, as its teeth appear to possess the rodent character; its body is thickly covered with hair, and its feet seem to be divided into claws, and its whole shape is nearly that of a rather fat rabbit. So perfectly does it resemble the rodents, that the older naturalists called it Cavia capensis, or Cape cavy, and had it placed it among the rodents, like the guineapigs and other cavies.

Cuvier was the first to discover its true character, and to establish it in its proper position, which, in spite of its small size and rabbit-like appearance, is between the rhinoceros and tapir, appearing to form a link between these two animals. There is a very good specimen of the Cape Hyrax in the Regent's Park

Zoological Gardens.

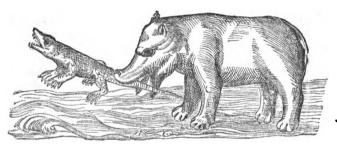
When the creature is divested of the skin which is so deceptive, it presents a very unexpected appearance, its entire skeleton bearing a close resemblance to that of the tapir, while its skull is even more rhinocerine than that of the tapir. In fact, many portions of the skull, including the molar teeth, are those of a miniature rhinoceros, while the great depth of the lower jawbone is, if possible, more tapirine than even the jaw of the rhinoceros.

The fore-feet are found to be divided into four toes, tipped with little hoofs, and the hind-feet into three, guarded in the same manner, while all the toes are concealed in the skin just like those of the rhinoceros.

There are several species of hyrax, the two best known being the Cape hyrax and the Syrian hyrax, which is supposed by many to be the "cony" of Scripture, that makes its habitation in the rocks.

THE HIPPOPOTAMUS.

The very remarkable figure which I here present to my readers is copied from an old engraving that was taken from the Vatican at Rome, in 1658, and will give a tolerable idea of the misconceptions that were rife about the hippopotamus and its history.



This very drawing was the cause of the mistake into which all the older naturalists fell, viz., that the hippopotamus preyed on the crocodile. That such a figure should have found a place in such a locality is certainly surprising, because the habits of the animal must have been tolerably known at the time when it was sculptured. The general idea of the animal is, as will be seen from the engraving, tolerably correct, although the teeth and feet are not particularly exact.

The hippopotamus is exclusively an African animal. Some travellers have asserted that it is found in other countries; but in more than one instance it