

WILD SPORTS OF THE WORLD.





WILD SPORTS

OF

THE WORLD:

A BOOK

OF

NATURAL HISTORY AND ADVENTURE

BY JAMES GREENWOOD:

Author of "Savage Life," &c.

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PREFACE.

THE history of a nation like ours, the secret of its vast successes, is not to be written in a word, or sought in any one or any dozen qualities. But if we had to choose amongst the philosophers who pretend to have traced the national life to its source, there are not many of us who would not declare for those who find the secret in Adventure. It is simply an historical fact that England was born of Adventure. It was this spirit in the great old Scandinavians, from whom we have the honour to descend, which scattered amongst the oaks of Britain a people that took as kindly to its soil as they, and which in a thousand years had lost none of the fibre that pulled the old beaked galleys over the terrible North Sea. Now if we consider what adventure means, we shall find reason to hope that many more years will pass away before this spirit begins to decline. We may hope so for the world's sake, as well as our own, without egotism; for to adventure-to our adventureis due almost all the colonisation that has ever been accomplished since the Romans quitted the trade. What colonisation means is not to be told within the limits of a whole volume such as this: in brief, it means existence to millions, and onehalf the comfort and prosperity we enjoy. But the subjugation

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of territory, and the supplanting of less useful races, is not all the work of an adventurous people. The inspiration is omripresent, more or less. It enters into everything to which a man can lay his hands; for to it go curiosity, patience, labour, self-sacrifice; it demands, while it nurtures, foresight, toleration, steady aims, ready hands; without it man is little better than a vegetable, with it he has eyes to see and wings to fly all over the world. It prompts discovery and pursues it. It constantly adds new labours to the work of mankind, and supports them through it, even where there is little but weariness and vexation for reward. Those who imagine, then, that Adventure has only to do with geographical exploration, or with sending ships to sea, know nothing of its true force. It is the life of science, the pioneer of religion even; for the missionary could no more exist without it than could the chemist. Nay, it is doubtful whether the sinew of the British navvy is all that carries him through work which labourers of a less adventurous race call on him to perform in every quarter of the globe.

Assuming this to be true, not a word need be said as to the importance of keeping the ancient spirit alive in England. On the other hand, a great deal might be said about the causes which threaten its decline. Its own results are not the least important of these. Luxury, and the growth of great towns, with their overworked, overcrowded populations, are unfavourable to adventure exactly as they lead to physical deterioration. Nobody expects to find as much courage in a spinning-mule as in the wild horse; and it would be unreasonable to look for the same spirit in a town-bred boy, as in one who had always a river or a tree at hand, in which to risk his life and train his faculties. But after all, the day has not yet come when we

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need entertain serious apprehensions on this head. We are not likely to lose in one generation, or two, the North-Sea salt that survives in our blood after so many centuries of change; it is inherent. Just as every frog is born with a tail, so every boy born in Britain comes into existence an adventurer-that is to say, a seeker and conqueror. The world is to him, verily, only an oyster, waiting to be opened. He dreams, but his dreams are all of doing and enduring. Before fourteen, he has beaten-in long engagements fought in the air-captains mightier than Napoleon : Wellington could beat him. He has crushed French navies, founded kingdoms, traversed deserts, superseded steam, hunted new monsters, discovered strange lands, re-mapped the The time comes, indeed, when these big fancies heavens. have to give way to petty realities; but they are tonics of the first order, and meanwhile they have helped to make a man of him. Nor does his disappointment descend to his children: they begin as he began.

Whether, in the face of so many discouragements as it meets in our day, this spontaneous generation of energy might not gradually cease, is a grave question. But the national instinct is alive to the danger. Within the last five years we have seen the country stirred with anxiety, not for its *enterprise*—there is enough of that—but for its muscle; for the hunting, rowing, leaping, hill-climbing spirit—for its manliness, in short. Pluck and hardihood are the things most prized —adventure, as much as can be had, the thing most pursued.

It is a fortunate revival, and nothing can be contemptible that contributes to it. Perhaps this Volume may do so. It is full of examples of courage and endurance—full of those stories of hardihood which fire the imagination of youth, not to corrupt, but to chasten and attemper. That of itself is not an unimportant thing; but the Book, we hope, will not only strengthen the spirit, but inform the mind of the youthful reader. This is the claim we venture to set up for it: that while it is instructive in a merely technical sense, the excitement to be found in its pages cannot fail to stimulate the more wholesome, more generous, more manly instincts of those intc whose hands it is destined to fall





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MILODON.

HOUSANDS of years ago, when waved green and cool the mighty leaves whose impress is now and then found in coal, fathoms below the earth's present surface ;—when indeed what now are grim coal-fields, the lurking places for darkness that may be felt," and of deadly gases hungering for flame, were broad forests, mellow and blooming,— the elephant was common all over the world. Out of the river we have named Thames has he many a time slaked his hot thirst, and up the slope known to moderns as Ludgate Hill, has he strolled leisurely, browsing among the great trees. The remote and barren North, where now eternal snow is, at that period yielded him pleasant pasturage; where the fur-clad sledger now guides his sure-footed antlered steed, then flowed soft rivulets in which he cooled his parched hide; and where hills and mountains of ice, nurtured by bleak winds, grow and flourish apace, then sprouted juicy palms and tendor grasses for the maintenance of the giant herds there abounding.

It must have been so; for beneath the pavement of every city in the world, in beds of streams, on river banks, and in remote caves, the bones of this ponderous animal have been discovered; and although there exists between the ancient fossil and the living animal with which we are acquainted, a difference of structure, the presence of certain organs undoubtedly associated with peculiar instincts are exhibited as prominently in one as the other ;—instincts, the means of gratifying which it was absolutely essential should be co-existent. But it would be a waste of words, and an insult to the reader's understanding, to enter upon an argument to prove that herbivorous quadrupeds could not possibly exist without herbs, or to show the impossibility of juicy leaves and succulent herbage growing amid the withering frost of the northern hemisphere.

Indefatigable labourers in the field of science—Darwin among the number—agree that the climate of the far North is now as it ever was; and that that fact not at all precludes the possibility of such mighty quadrupeds as the elephant and rhinoceros there abiding. In certain regions of North America, the subsoil is *perpetually* frozen (as in the neighbourhood of Bear Lake, where the summer thaw never penetrates deeper into the soil than twenty inches); yet this frozen substratum does not of itself destroy vegetation, for dense forests flourish on its surface. At the present day, we have growing in Siberia, where the temperature of the air is invariably below freezing point, and the earth like iron, the birch, fir, aspen, and larch. As far as quantity alone of vegetation is concerned, the frozen carcases and ice-bound relics of various animals might have existed where the remains are now discovered. The kind of vegetation at present existing is almost immaterial, because, as there is evidence of physical changes, it may be fairly supposed that the species of plants may likewise have changed.

The nearer we approach the Arctic circle, in greater abundance are vestiges not only of elephants, but of tortoises, and crocodiles discovered. On the borders of Siberia they are so commonly found, and in such prime condition, as to constitute a considerable article of commerce, and one of sufficient value to be worth monopolizing by the reigning Czar. Such of his subjects who live in these isolated regions, hold a fabulous belief concerning this seemingly inexhaustible wealth of ivory. They say that before man came on the earth, the tremendous beast whose remains are these, burrowed mole fashion underground. The Chinese patronize a similar superstition, and the subterranean relics discovered throughout China are said to belong to Tyn-schen, "the mouse that hides."

Writers of various periods have advocated the opinion that the remains of elephants discovered in Siberia, were conveyed thither by the mountain streams of India; but the fact of tusks and bones being found in large quantities along the banks of the Don, the Volga, and other rivers *flowing from the north*, goes far towards upsetting the theory respecting their water passage. "There is not," says M. Pallas, a renowned traveller, and a great authority on this subject, "there is not in all Asiatic Russia, from the Don to the Tanais, a single stream or river, on the banks or in the bed of which are not found some bones of elephants, or of other animals equally strange to the climate."

In 1799 was discovered, in the dominions of the Czar, a tremendous elephant—perfect as when, a thousand years before, death had arrested its breath—encased in a huge block of ice, transparent and clear as crystal. A fisherman of Tongoose, named Schumachoff, was the fortunate discoverer. This man, like his neighbours, was accustomed when the fishing season was at end, to employ his time in hunting along the shores of the Lena for elephant tusks, for the sake of the government bounty; and while so employed, and when he dad, in the ardour of his pursuit passed several miles beyond his companions, there suddenly appeared before his wondering eyes the miraculous sight above alluded to. Unfortunately, however, Schumachoff was a man of dull and simple mind, and instead of turning his discovery to profit, by proclaiming it to the world, or to that part of it with

THE ELEPHANT.

which he had dealings, he did nothing but gaze awfully on the embalmed mammoth, between which and himself there stood but a few hummocks of spiky ice. It was on account of this barrier that he excused himself when the business came to light; but the real barrier that stood in the fisherman's way, was one more formidable than a hill of bayonets as high as the Alps—his superstitious (cars. For five successive seasons from the time when he first dus-



covered it, did Schumachoff make stealthy journeys to his crystallized monster, never finding courage sufficient to approach it closely, but simply standing at a distance, once more to feast his eyes on the wonder, and to carry away in his thick head enough of terror tc guarantee him nightmare for a whole month of nights. At last he found the imprisoned carcase stranded on a convenient sand-bank, and boully attacking it, broke the gluttering casing, and roughly despoiling the great beast of its splendid tusks, hurried home and sold them for fifty roubles, leaving the well-preserved bulk of elephant meat, a thousand years old, yet juicy and without taint, to be devoured by wolves and bears, or hacked to bits by the natives as food for their dogs. It was not till full two years after this event, that a celebrated naturalist got wind of the above particulars, and at once visited the spot. Too late, alas! what was the carcase, huge as it was, to the many pairs of hungry jaws that had assailed it through two seasons of starving frost! The elephant was picked clean, an entire fore-leg even had disappeared, and nothing remained but the tuskless, three-legged skeleton. The eyes, however, were still in the sockets, and the brains entire in the skull.

But we need not travel to Russia to prosecute a successful search for elephant relics. Canterbury has produced them. In Kirkdale Cave, Yorkshire, Professor Buckland found them mixed with those of the rhinoceros, the hippopotamus, the horse, the ox, and the hyena; (this phenomenon has been attributed to the Great Deluge; the frighted brutes hiding from the overwhelming flood). Elephant remains have likewise been dug up in plenty in Gloucester, in brick-earth pits at Brentford, and in Gray's-Inn, London. The Sloane Museum possesses a magnificent tusk, found at the latter place, twelve feet deep in the gravel.

As lately as the seventeenth century, human anatomy was but little understood, and comparative anatomy still less. To our forefathers, a cartload of animal remains were but so many bones of contention; and an inquest of six months' duration held on them, did not produce as many conclusive facts as to the structure of the various owners, as would be derived in six hours by a modern Owen, with no more substantial ground to work on than the defunct's solitary tooth or toe-nail. There can be little doubt that much of the bygone superstition respecting "giants," sprung from the contemplation of the great bones occasionally brought to light. When, for instance, in the reign of James I. "big outlandish bones" were discovered at Gloucester, the King appointed Lord Cherbury to find out what he could respecting them. It would seem that to everybody in the realm at all competent to judge of a bone these relics were exhibited; but the verdict of the jurors was by no means unanimous. Some gravely opined they were the bones of a human giant, and advised their immediate re-interment with Christian rites; others, including Dr. Harvey, declared the bones to belong "to some exceeding great beast, as an elephant. Bishop Hakewell, who was one of those consulted by Lord Cherbury,

says :---" His Lordship showed me some bones, which he had collected; which were a huckle-bone, part of the shoulder-blade some parts of a tooth, and the bridge of a nose, all of a huge bigmess. The bridge of the nose was what confirmed his lordship's and my opinion, that it could not be that of a man, for it did scem to be a bone very apt to bear up the long snout of an elephant... One of the teeth of this pretended giant, by the special favour of my lord of Gloucester, was examined by me. I found it to be a stony substance, both for hardness and weight; and it should seem, by his lordship's letter to me, that he himself was not confident that it was the tooth of a man."

In those "good old times," simple arithmetic must have been as unknown a science as comparative anatomy. The tooth above spoken of, supposing it to have been the tooth of an elephant, must have weighed, say ten pounds. Now the average weight of adult human teeth is a hundred and sixty to the pound, and taking the weight of a grown man to be two hundred pounds, a single tooth is about a thirty-thousandth part of his weight, so that the tooth of this Gloucester giant weighing ten pounds, his entire carcase would have turned the beam against *a hundred tons*,—the weight of about a hundred and sixty fat bullocks.

Nevertheless it was a common practice to ascribe to these colossal bones human origin. In the reign of Louis XIV. the subject gave rise to a dispute, which for tenacity and the amount of argument adduced on either side, is almost unmatched in the annals of controversy. The remains in question were discovered in a sand-pit in Dauphiné, by a surgeon named Mazurier. He falsely represented that the bones had been found in a sepulchre thirty feet long, and that covering the top of it was a stone slab, on which was cut the inscription *Teutobochus rex*, and further pretended that near the same spot were found medals, and other evidence showing the relies to be those of Teutobochus the giant king of the Cimbri, who fought against Marius. Cuvier mentions twelve pamphlets published during the controversy, but finally it was clearly demonstrated by Riolan, that the bones were those of an elephant.

Germany has produced more fossil bones of elephants than any other country; indeed, Blumenbach reckons two hundred places (including Tonna in Gotha, at which place, and at a depth of fifty feet, in almost complete skeleton was discovered, the tusks of which measured eight feet in length), where elephant remains have been discovered. This however may not be entirely attributable to the greater profusion of such fossils in Germany compared with other countries, but rather to the fact that the science of comparative anatomy found its earliest patrons there, and that a hundred years ago even, there was scarcely a district that could not produce a man capable of authentically recording the details of every interesting discovery.

The giant of Lucerne is almost as celebrated as King Teutobochus. Nearly three hundred years ago this prodigy was exhumed, and by order of the council of Lucerne, examined by Felix Platen, a renowned professor of Basle. Platen speedily announced to the astonished council, that the remains were human, and to justify this verdict, designed and put together an entire skeleton of corresponding dimensions, by which it appeared that the tremendous fellow must, when alive, have stood at least twenty-six feet high. So the good folks of Lucerne believed in and continued to pay homage to their giant patron, till a few years since, when there came along one of those ruthless demolishers of mystery and hole-and-corner mummery, Blumenbach by name, who visited the giant as it lay in awful state at the Jesuits' College, and in a less number of hours than it had been preserved centuries, pronounced it a sham, and without difficulty convinced the worthy citizens that they had been guilty of the grave error of mistaking elephant bones for human.




STRUCTURE OF THE ELEPHANT.

In ancient times the most whimsical notions were entertained respecting the structure of this ponderous animal. "Folks held to the fallacy," says Sir Thomas Brown, "that it hath no joynts, and this absurdity is seconded by another, that being unable to lie down it sleepeth against a tree, which the hunters observing, doe saw almost asunder, whereon the beast relying, by the fall of the tree falls also down itself; and is able to rise no more." Pliny, Aristotle, and other equally celebrated writers of a by-gone age, were alike faithful to this wooden notion. With the most perfect faith Pliny says, "In the island of Scandinavia there is a beast called Machlis, that hath neither joint in the hough, nor pastern in his hind legs, and therefore he never lieth down, but sleepeth leaning to a tree; wherefore the hunters that lie in wait for these beasts, cut down the trees while they are asleep and so take them : otherwise they would never be taken, they are so swift of foot it is wonderful."

There can be little doubt that this error sprung from the fact, that from the animal's peculiar construction he seldom or never lies down. It is can rest comfortably on those "grosse cylindrical structures" his legs, and it is no uncommon thing for hunters to discover their colossal game dozing in the shadow of a tree, its body leaning indolently against the trunk. Again, the superstition may have derived support from the circumstance of trees and rocks found bearing impressions of the animal's great sides. But the elephant has not been sleeping there, he has merely been following the dictates of his piggish nature, and enjoying a comfortable rasp



after his mud bath. Elephants have been known to remain standing after they have been shot dead: Captain Denman shot one that remained so.

In captuvity elephants seldom lie down; indeed the keepeis are accustomed to re gard a beast found prostate as one smitten with some dis order and at once place him on the sick list, regulating his diet and putting him to no kind of labour for a while An elephant that belonged to Louis XIV. never assumed any other position than a standing one through five years, though at the same time it was evident it was reduced to adopt that course from other than natural causes, for with the points of its tusks it had scooped two holes in the stone walls of its den, and into these holes it was accustomed to hitch its ivory appendages when inclined for a nap.

In one respect do the hindlegs of the elephant differ in their formation from those of

any other quadruped. Instead of bringing them under hum when he hes down, he extends them *behind* him, as does a human being. The struggle which horses and oxen experience in rising from the ground is by this providential arrangement of the hund legs of the elephant avoided. He simply draws his hind feet gradually under him, and his enormous weight is levered up without a perceptible effort.

Owing to this beautiful arrangement of the boncs and muscles, the elephant is rendered one of the most sure-footed of animals. Carrying on his back a heavily-laden howdah, he will descend precipitous slopes with the most perfect ease. He manages it in this way: kneeling down at the commencement of the declivity, he puts out one fore-leg and feels cautiously for a safe footing; if he does not find it naturally, he sets about making it artificially by hammering in the soil an indentation with his broad and heavy foot. One foot thus accommodated, the other one is drawn out with equal care, and provided for in the same fashion as the first. Then one of the hind-legs is cautiously drawn forward, and one of the fore-feet being released from the foot-hole, it is inserted in its place. It might be imagined that to afford time to the cunning elephant to go through these performances with the careful deliberation necessary to their perfection, travelling through a hilly country must be tedious work; this is, however, far from being the case : so rapidly does the sagacious animal perform the manœuvies above described, that in as little time as it has taken me to write this paragraph, the howdah and its occupants would have reached from the top to the bottom of a considerable hill.

He is a strict vegetarian, his intestines being formed exactly as are those of the horse; unlike the horse, however, he has not the long elastic neck so perfectly under the control of the possessor that • he can erect it above his chest straight as a column, or lower it to the earth and browse without the least deflecture of his legs. Supported upon a short and stiff series of vertebræ, the huge animal can only move his head with constrained and pivot-like action. It is sole dependence, therefore, is his trunk, and when we consider that with this member rendered incapable, the certain fate of the poor savage brute would be starvation, it ceases to seem wonderful that he should preserve the curious worm-like thing with such care in captivity : should the elephant's trunk get injured, he has to be fed for the remainder of his life. Mr. Williamson saw one whose trunk had been slicet with a bill-hook, and though the wound healed up, it was cf no farther use to the poor brute, who was fed with grass and hay doubled into bundles and thrust into his mouth. Some years ago, an elephant kept in a menagerie at Dublin was accidentally burnt to death, and when his remains came to be examined, no trunk could be found, so it was of course thought that it had perished in the fire, but upon closer examination it was found thrust *two feet deep* into the hard ground that made the floor of his den.

Wild elephants sometimes go blind, but guided by the trunk, they are still enabled to gather food, to travel over unequal ground, and to avoid ditches and hollows. So exquisitely fine is this organ of touch, that the blind brute by extending it before him as far as possible, and letting the finger-like appendage attached to the end of it skim along the ground, is enabled to travel through leagues of forest with perfect ease.

Opposed to this finger is a smaller protuberance, which may be called a thumb; and if the objects he is collecting to eat be too insignificant to be worth the trouble of being passed separately to the mouth, he holds them one by one behind this thumb till he has gathered a mouthful. If it be grass on which he is dining, he will twist the end of his trunk round a tuft, pluck it up, and after beating it against one of his fore-legs till the roots are free from carth, pass it into his mouth.



When he finds a cocoa-nut, he first kneads it under foot to remove the outer back, then after plucking off the coarse fibre with which the inner shell is surrounded, passes the dainty into his maw, evidently much enjoying the sweet liquid that exudes as he crunches up the nut, shell and all.

The elephant's trunk is not composed of a mere series of muscular rings, as its appearance would lead one to suspect. It is one of the most marvellous constructions in creation, and one that manifests completely the wondrous wisdom of the Maker of all things. Possessed of it the elephant, despite enormous bulk, ccases to be unwieldy; it is a magic wand that at once lifts him from the grovelling condition of his even less bulky brethren, the rhinoceros and hippopotamus.

A curious delusion respecting the habits of the elephant existed till within a very few years, viz. that the young ones imbibed the milk of the mothers' teats *through their trunks*. It was such a plausible theory, that, on the strength of their own sagacity, and the authority of such renowned naturalists as Buffon and Perrault, writers of all countries shut their eyes to facts and their ears to reason, and clung to it most pertinaciously. The young elephant, however, does *not* imbibe the mother's milk through its trunk; if it uses it at all during the process of sucking, it is simply to knead the udder while



BICTIONS OF TRUNK.

the teat is in its mouth, in an endeavour to increase the flow of milk, as human babies when they grow old enough to be able, will press their mothers' breasts with their hands. At no time is the elephant's disinclination to lie down so clearly demonstrated as when the dam is suckling her calf. In a wild state she will rather extend her legs and assume a stooping and evidently inconvenient posture. When in captivity, should the dam be tall, the keepers construct a little platform for the baby elephant to stand on while it is sucking.

Damp, worm-like, disagreeable-looking thing as it seems, it has three distinct and perfect uses. First of all it is an organ of smell, an elorgated and curiously elastic nose in fact, and without doubt of incalculable value to the animal in selecting food above his range of vision, and adding considerably to his ability to scent at a distance savage beasts, or his still more formidable enemy, man. Two canals are continued from the nostrils, which are reflected round the nasal bones and then proceed straight to the termination of the trunk. The canals are separated by and embedded in a fatty elastic membrane, containing thousands of minute muscles. Of these there are three sets : an outer longitudinal, composed of four layers; an oblique set, which are variously directed; and a third set which radiate from the tubes to the circumference. They are very small, and supposed to number as many as forty or fifty thousand.

Besides an organ of smell, the proboscis of the elephant serves as a sucker by which it can quench its thirst at a pool too shallow even for the neat-mouthed horse to advantage himself of. There is, however, no passage through the trunk to the mouth, so that when the former is drawn full, its contents are transfeired to the animal's throat by



turning the little mouth to the great one and squitting the liquid therein. Whether the elephant, having satisfied his thirst at a

river he has travelled twenty miles to reach, provides for an after-draught by filling this convenient vessel before he starts for home, is more than I can say; neither do I find it anywhere recorded whether or no the animal can, with his trunk filled with water, at the same time use it as deftly as though it were empty, or trumpet with it, as is his wont when pleasurably or otherwise excited. Last, but by no means least, is the wonderful little apparatus that terminates the trunk ; boneless, yet mobile as the thumb of a weaver. A pin is not too small an object for this delicate member to grasp, and even



so slight and inconsiderable a substance as a sixpence it wilf apply itself to and lift from the ground without bungling.

From the elephant's upper jaw extend two enormous teeth, fixed in sockets in the front of the mouth, but which, correctly speaking, are neither incisors nor tusks, although by this latter term they are universally known. However, they do not perform the usual functions of teeth, and are not situated as tusks usually are. French naturalists of the modern school call the weapons in question Defenses, a term applicable solely to their use, and evading the question of position. The French title is correct, inasmuch as it exactly defines the use of the ivory protuberances. Although often nearly ton feet in length, and sharp enough to pierce easily the toughest hide that ever enveloped a carcase, the elephant-except he be a "rogue" (of which class of elephant kind mention will presently be made)seldom or never uses his tusks except in self-defence. These tusks, as well as those of other Pachydermata, grow upon a simple pulp, such as that which forms the teeth of the bottle-nose whale. They are formed of ivory without any enamel, and their growth is only limited by the abrasion to which they are subject.

In most carnivorous as well as herbivorous animals, the succession of teeth is provided for precisely in the same way as with ourselves, namely, by the formation of a new tooth below each of the deciduous ones; so that when the latter falls out in consequence of the absorption of its fangs, the former is ready to take its place. The germ of the second tooth is at first imbedded in the jaw-bone in the immediate vicinity of the roots of the one it is destined to replace, and as its growth advances, the old and used tooth is gradually removed to make way for the new-comer. The steps of this process are exactly similar to those by which the milk-teeth of a child are changed, and the details connected with it are familiar to us all.

In the elephant, however, the succession of teeth is effected in a very different manner; the place of the first formed being supplied by others that advance from behind as the former become used. "Animals exhibiting this mode of dentition," says Rymer Jones, from whose garner of anatomical curiosities these particulars are chiefly culled, "have the grinding surfaces of their molar teeth placed obliquely, so that if they were to issue altogether from the gum, the anterior portion would be much more prominent than the posterior, notwithstanding that the opposed teeth act upon each other in a horizontal plane." The consequence of this arrangement is that the anterior portion of these teeth is ground down to the roots and worn away sconer than the posterior portion. Moreover, the posterior part of the tooth is considerably wider than the anterior; so that as the succeeding tooth advances from behind, there is always sufficient room to receive it, and in this way by the time the first tooth is quite destroyed and falls out, a new one from behind has already taken its office. There is therefore no absorption of the roots of these teeth, but they are ground down from the crown to the stump. The new tooth that thus advances from behind, is always of larger dimensions than that to which it succeeds; because the animal itself has grown in the interval, and the jaws have become proportionately developed.

The elephant may in this way have a succession of seven or eight teeth on each side in both jaws, or from twenty-eight to thirty-two in all; and nevertheless seeing that the anterior ones successively fall out, there are never more than two visible at once above the gums on each side, or eight in all; generally indeed there is only one visible at a time. Every successive tooth is composed of more laminae than that which immediately preceded it, and a longer time is required to perfect its growth.



John Hunter, whose indefatigable labours embraced this among a thousand other subjects, bears corroborative testimony to the above. He says, "Elephants do not shed their teeth as other animals do that have more than one; for those that have more than one tooth can afford to be for some, time without their teeth: the waggons were not prevented travelling nearly in a straight line." It should be recollected, however, that the underwood which the bulky animals consume, contains much nutriment in a small bulk, and that, thanks to the rich rank soil on which it grows, the green boughs are replaced within a very short time of being cropped.

There is reason to believe that our ideas respecting the quantity of food required by the giant quadrupeds are much exaggerated; as truly says an acute writer, it should be remembered, that the camel, an animal of no mean bulk, has always been considered an emblem of the desert. As regards the elephant, he is as dainty in the selection of his food as 'he best of us. Certain sweet tasting fruits and blossoms are his delight. He chooses the mohonono, the mimosa, and other trees, which contain much saccharine matter, mucilage and gum. Applying his trunk to the stem of a lofty palmyra, he sways it gently to and fro to shake off the delicious seeds, which he picks up and cats singly. It is by no means a fair test, to catch an elephant, bring him to a climate which might have suited his ancestors, but which is not so agreeable to him, feed him on hay, carrots, and mangold wurzel, and summing up the weight of the late contents of his manger, write down, "the elephant consumes so-and-so in a day." It is extremely probable that if a day's provender selected by the animal himself could be weighed, it would be found to be less than half of that allowed to a menagerie elephant; and it is more than probable that the amount of sugar, and gum, and mucilage found in the smaller quantity, would considerably exceed that of the latter. Night is the time selected by the elephant for feeding; it is then more cool and comfortable for locomotion; the buds and leaves are saturated with dew, and are thus doubly grateful.

The elephant of Ceylon is supplied much more plentifully with food than his African brother. Tennent says: "The food of the elephant is here so abundant, that in eating he never appears to be impatient or voracious, but rather to play with the leaves and branches on which he leisurely feeds. In riding by places where a herd has recently halted, I have sometimes seen the bark peeled curiously off the twigs, as though it had been done for amusement." The same 'outherity relates, that the natives of the peninsula of Jaffna always look for the periodical appearance of the elephants at the precise moment when the fluit of the palmyra palm begins to fall to the ground from over ripeness. In like manner, in the eastern provinces, where the custom prevails of cultivating *chena* land, by clearing a patch of forest for the purpose of raising a single crop, after which the ground is abandoned, and reverts to jungle again, although not a single elephant may be seen in the neighbourhood during the early stages of the process, the Moormen, who are the principal cultivators of this class, will predict their appearance with unerring confidence so soon as the grain shall have begun to ripen; and although the erop comes to maturity at a different period in different districts, the herd are certain to be seen at each in succession, as soon as it is ready to be cut.

Acute as is the elephant's sense of hearing, it will hardly account for the celerity with which the existence of danger becomes known far and wide amongst them. This indeed constitutes one of the greatest difficulties with which the elephant hunter has to contend. Attack a herd to-night, and no matter how quietly the slaughter is consummated, by sunrise to-morrow all chance of more elephant sport in that neighbourhood is at an end. Somehow or another, news ct the presence of the man with the terrible gun gets wind, and straightway ensues an elephant gathering and flitting. He has the contempt for short distances that might be expected of a brute of such magnitude, and it is nothing for his bulky legs to trudge him along fifty miles in a single night. Other wild and herbivorous animals seldom think of selecting a haunt, without an abundant supply of water in the immediate neighbourhood, but to the elephant, a score of miles between his "bite and sup" is the most ordinary condition of things. Indeed they almost invariably choose for their resort the most lonely and secluded depths of the forest, at a very great distance from the fountains at which they drink. According to Cumming, in hot dry weather, the elephant drinks nightly; but in cool and cloudy weather, only every third or fourth day. About sundown, says the renowned lion-killer, "the huge creature leaves his midday haunt, and commences his march towards the fountains, which are probably from twelve to twenty miles distant. This he generally reaches between the hours of nine and midnight; when, having slaked his thirst, and cooled his body by spouting over it large volumes of water, he resum the path to his forest solitudes. Having reached a secluded spot, the full grown bulls lie down on their broadsides, about the hour of

midnight, and sleep a few hours. The spot which they usually select is an ant-hill, and they lie around it, with their backs resting against it. These hills, formed by the white ants, are from thirty to forty feet in diameter at the base. The mark of the under tusks is always deeply imprinted in the soil, thus proving that they lie on their sides." It is, however, only in such solitary places where the elephant has never been hunted or otherwise disturbed, that he will confide the length and breadth of his great carcase to the earth. In elephant districts common to the hunter, the animal sleeps as he stands, ready at a moment's notice to flee. There can be little doubt that the elephant accommodates his habits pretty much to circumstances. As has been already remarked, he feeds by night and rests by day, and no doubt such is the rule; but in regions where he may lie down without fear, he will crop a meal night or day, just as it suits his fancy. Mr. Cumming says of the African elephant: "In remote districts, and in cool weather, I have known herds to continue pasturing during the whole day."

The mode by which one of a herd conveys to his fellows intelligence of the approach of danger, is by uttering a low, suppressed sound, made by the lips, somewhat resembling the twittering of a bird, and described by the hunters by the word "prut." Sir Emerson Tennent, who was the first to notice this last-mentioned peculiarity, further makes mention of a very remarkable noise uttered by elephants when their alarm was too great to be expressed by the stealthy note of warning just described. "On these occasions," he says, "the sounds produced, resemble the hollow booming of an empty tub when struck with a wooden mallet or a muffled sledge." Major Macready, who heard the sound by night amongst the great forests of Bintenne, describes it as "a sort of banging noise, like a cooper hammering a cask;" and Major Skinner is of opinion, that it must be produced by the elephant striking his sides rapidly and forcibly with his trunk. Mr. Cripps informed Tennent, that he had more than once seen an elephant, when surprised or alarmed, produce the sound by striking the ground forcibly with the point of the trunk, and this movement was instantly succeeded by raising and pointing it in the direction whence the alarm proceeded, as if to ascertain by the sense of smell the nature of the threatened danger. As this strange sound occasionally mingled with the bellowing and ordinary trumpeting of

the herd, it is in all probability a device resorted to not alone for warning their companions of some approaching peril, but also for the additional purpose of terrifying unseen intruders.

Considering his bulk and weight, the facility and noiselessness with which the elephant can when it suits him glide through the bushes is truly wonderful. Suddenly disturbed by the hunter, he will burst away with a roar and a rush, crashing and rending all before him: on he goes till hidden from view by a clump of dense underwood, and then the clatter so suddenly ceases, so breathless a stillness succeeds the uproar, that any one unacquainted with the ways of the elephant would make quite sure that behind that bush the great beast was hiding; impressed with the idea, the green hunter creeps silently up to the hiding-place—to find it perfectly innocent of elephant; the cunning brute without so much as snapping a twig has got away, and could he be seen, is doubtless a mile away, congratulating himself on his good fortune.

Thoroughly inoffensive as is the elephant, great respect is invariably paid him by all the beasts of the forest; no one disputes his path. The lion has no objection to step aside that the elephant may pass; the leopard at the sound of the tremendous footstep skips up a tree, and snugly ensconced amongst its branches, grins down on "the lord with the trunk." The author of "Lake Ngami" draws a graphic picture of the approach of a herd of elephants to drink at a pool. "If the spring or pool, as the case may be, be of small extent, all the animals present will invariably retire from the water as soon as they are aware of the presence of the elephant, of whom they seem to have an instinctive dread, and will remain at a respectful distance till the giants have quenched their thirst. Thus, long before I have seen, or even heard the elephants, I have been warned of their approach by the symptoms of uneasiness exhibited by such animals as happened to be drinking at the time. The giraffe, for instance, begins to sway his long neck to and fro; the zebra utters subdued plaintive cries; the gnoo glides away with a noiseless step; and even the ponderous and quarrelsome black rhinoceros when he has time for reflection will put up short in his walk to listen ; then turning round, he listens again, and if he feels satisfied his suspicions are correct, he invariably walks off, usually giving vent to his fear or ire by one of his vicious and peculiar snorts. Once, it is true, I saw a rhinoceros

drinking with a herd of seven male elephants, but then he was of the white species; besides, I don't believe that either party knew of the other's proximity."

The disinclination of the elephant to make his way through the mercst fence is somewhat singular. The natives of Ceylon are accustomed to erect round their rice patches a fence of slight sticks, about six feet in height, and though the wild elephant is remarkably fond of green rice, never on any occasion, except there be a rogue about, is the fence broken. Pathways about twenty feet wide are left between the fences, and through these, in the night, the wild herds pass to drink at the water-tanks without doing the least damage ; yet that the ponderous brutes have every inclination to feast on the dainty grain is sufficiently proved by the fact, that as soon as the crop has been cut and carried home, the abandoned enclosures are eagerly entered by the elephants, who resort to glean amongst the stubble. Even when wounded by the hunter, the infuriated beast will hesitate to charge his assailant through a hedge, rather preferring to run along the barrier in search of an opening. Tennent says, "It is possible that in the mind of the elephant there may be some instinctive consciousness that owing to his superior bulk he is exposed to danger from sources that might be perfectly harmless in the case of lighter animals, and hence his suspicion that every fence may conceal a snare or pitfall. Some similar apprehension is apparent in the deer, which shrinks from attempting a fence of wire, although it will clear, without hesitation, a solid wall of greater height. At the same time, the caution with which the elephant is supposed to approach insecure ground, and places of doubtful solidity, appears to me, so far as my observation and experience extend, to be exaggerated, and the number of temporary bridges annually broken down by elephants in all parts of Ceylon is sufficient to show that, although in captivity, and when familiar with such structures, the tame ones may, and doubtless do exhibit all the wariness attributed to them, yet in a state of liberty, and while unaccustomed to such artificial appliances, their instincts are not sufficient to ensure their safety A fact illustrative at once of the caution and the spirit of curiosity with which an elephant regards an unaccustomed object has been frequently told to me by the officers engaged in opening roads through the forests On such^e occasions the wooden 'tracing pegs' which

they are accustomed to drive into the ground to mark the levels taken during the day, will often be withdrawn by the elephants during the night to such an extent as frequently to render it necessary to go over the work a second time in order to replace them."

The belief that the elephant attains the age of two or even three hundred years is still provalent amongst the Singhalese; but it is a tolerably well ascertained fact that the duration of elephant life is only equal to man's own existence, viz. about seventy years. Of course there have been exceptions. As we have our "Old Parrs" and "Daddy Jacksons," so have they their long-lived ones. For instance, amongst the papers left by Colonel Robertson (son to the historian of "Charles V."), who held a command in Ceylon, in 1799, shortly after the capture of the island by the British, was found a memorandum showing that a decoy was then attached to the elephant establishment at Matura, which the records proved to have served under the Dutch during the entire period of the occupation (extending to upwards of a hundred and forty years); and was said to have been found in the stables by the Dutch on the expulsion of the Portuguese, in A.D. 1656.

In elephant countries, too, the natives have as little belief in a dead elephant as the most ignorant Cockney amongst us in a dead donkey; and it really is an extraordinary fact that no one has ever yet met with the skeleton of the elephant, throughout the mighty Singhalese forests. Tennent quotes an instance of a gentleman residing for thirty-six years without intermission in the junglepenetrating valleys and tracing roads during his trigonometrical pursuits, who never found the skeleton or body of an elephant that had died a natural death. This does not appear to be the case in Africa, for Beaver, in his "African Memoranda," relates that the skeletons of old elephants that have died in the woods are frequently found. It has been suggested that the bones of the elephant may be so porous and spongy as to disappear in consequence of carly decomposition, but, as Tennent observes, this remark would not apply to the grinders or to the tusks. The last mentioned authority states that the Singhalese have a superstition relating to the closing life of the elephant; they believe that on feeling the approach of dissolution he repairs to a solitary valley, and there resigns himself to death. While hunting in the forests of Anarajapoora, the

native who accompanied Mr. Cripps, observed, when they came to a secluded spot, that they were now in the immediate vicinity of the spot where the elephants came to die, but that it was so mysteriously concealed, that although every one believed in its existence, no one had ever succeeded in penetrating to it.

The excessive fondness of the female elephant for its calf has been much more frequently asserted than proved. Living together in herds or families, the sucklings draw their nourishment from the first ample udder that presents itself, and without the least consideration as to whom it belongs. Sure it is that the mother elephant suffers these libertics contentedly; but, as says White, the Selborne philo-



MODE OF SUCKLING.

sopher, this indiscriminate suckling of the young of one animal by another may have selfishness rather than tenderness for its source; the pleasure the older animal experiences in having its teats drawn, more than compensating for the inconvenience. Modern sportsmen and travellers who have had frequent opportunities of observing the habits of the wild elephant, agree in denying to the animal even an average share of maternal affection; quoting in support of this view instances in which, when pursued by the hunters, the elder brutes have abandoned the young ones and made good their own flight in spite of the clamorous and imploring bleatings of the helpless little things. Furthermore, it has been asserted by a sound authority, and the assertion has never, to my knowledge, been contradicted, that if a wild elephant gets separated from its calf but for the space of fortycight hours, she will take no further notice of it, although the youngster by all sorts of cries and coaxing tricks manifests a knowledge of its dam and its anxiety to renew the acquaintance.

At its birth the elephant is from thirty to thirty-six inches in height, and for the first day or two, very weak and incapable of any further exertion than that which is necessary to reach the mother's teat. Weaning a young elephant is a terrible job. How the poor elephant mothers manage with their rebellious young ones in a wild state is not known, but judging from the behaviour of the latter in a domesticated condition, she must have a harassing time of it. An English traveller who was an eye-witness to an elephant-weaning at Ava, thus describes the operation :--- "About two-and-thirty females with their young ones were driven into the enclosure, and shortly after there also went in four great male elephants, the riders of which had in their hands a long rope with a noose in the end. After many unsuccessful efforts they succeeded in snaring one of the calves by the hind leg. This was a difficult matter to accomplish, for besides its own opposition, it was protected by the adroitness of several of the grown females, who crowded round it. So outrageously did the calf struggle, that the big males had frequently to beat him, and I observed that once or twice they lifted him literally off his legs with their tusks, but without doing him any material injury. The cry which he emitted on these occasions differed in no way but in degree from the squeak of a hog in pain or fcar." Ultimately the bereaved calf was borne off by two of his full-grown male relations, and condemned to solitary confinement till he became reasonable.

The similarity of feature existing among herds of wild elephants goes far to prove that they do not associate promiscuously, but rather congregate in families. In a herd of twenty-one elephants, captured in Ceylon in 1844, the trunk of each exhibited the same peculiar formation. In another lot of thirty-five prisoners the eyes of all were of the same colour. Indeed there is generally to be found among the members of one herd some peculiarity of feature that distinguishes it from any other. These various herds are generally on friendly terms, and will occasionally mingle till a body two or three hundred strong is formed; but should there occur the slightest cause for alarm, the leader of his family will sound his trumpet, and what was a minute ago a promiscuous mob is now so many distinct squads, each without the least sympathy for the rest. It may be fairly assumed, however, that in order to maintain the vigour of a herd an occasional alliance out of the family circle is allowed, though it is vory certain that the elderly members keep a severe eye on the young sweethearting bucks, and never a one of them dare bring home the female of his choice without first securing the consent of a majority of his relations.

To such extreme lengths is this system of *caste* carried, that should an unfortunate animal by any chance lose all his relations, he is for ever cut off from the society of his kind, and doomed to a life of loneliness. The most modern and learned writers agree that the above-given reason is sufficient for the perpetual banishment of an elephant from among his species; but this view I can hardly understand. It seems strange that even brutes in a natural condition should conspire to act so unnaturally. The outcast is generally a bull—a fine handsome fellow with a sleek coat and magnificent tusks. We see no reason why he should be banned, but what do we know of elephant economy? The solitary one may have been a tyrant leader against whom his subjects have rebelled—he may have been a wicked wretch who has slain his nearest kin. What do we know of these things?

There he is, however, and he is to be met wherever elephants do congregate. In India he is called Goondah or Sawn, and in Ceylon Hora, which signifies "rogue." The rogue's tusks are against all elephants, and the tusks of all honest elephants are against the rogue-not to ill-use him, but to compel him to keep at a respectful distance. So long as he "keeps himself to himself" he may browse in the neighbourhood of his fellows-he may even bathe and drink at the same pool,-but closer familiarity is strictly forbidden. Even should the "rogue" be trapped with an honest herd, and driven with it into the "corral," and the great beasts one and all lie trembling with terror and trumpeting their lamentations, still the rogue must keep aloof. Family pride is stronger than family misfortune. Let not Hora deceive himself by hoping that in the great calamity that has fallen on his relations his iniquity will be forgotten. Nobody sympathises with him; nobody comes to him to clasp trunks and otherwise according to elephantine nature express condolence. Let the rogue dare even approach the family circle, and in an instant every member of it will forget his grief

and combine with his friend to keep off the intruder. But, as has already been observed, little love goes begging between the expelled and his expellers. The rogue's fierce hatred for his kind is not quenched because he happens to be taken prisoner with them. Sir Emerson Tennent, who has observed the habits of the elephant in every phase of its existence with greater care and attention than any other writer, was once present when an animal of this sort was driven with others into a corral in Ceylon. He says, "Amongst the last of the elephants noosed was a rogue. Though far more savage than the others, he joined in none of their charges and assaults on the fences, as they uniformly drove him off, and would not permit him to enter their circle. When dragged past another of his companions in misfortune, who was lying exhausted on the ground, he flew upon him and attempted to fasten his teeth in his head. This was the only instance of viciousness that occurred during the progress of the corral."

The inhabitants of villages in the neighbourhood of elephant haunts will always willingly lend their services at a hunt if there be a rogue about. And not without reason. Rendered savage and morose by his companions giving him "the cold shoulder," the "rogue" becomes less timid of mankind, and breaks through the fences the native crects round his crop of green rice and his plantation of young cocca-nuts, demolishing the labour of weeks in an hour or so. The outlawed rascal thinks nothing of sauntering in broad daylight among the rice reapers, catching up a sheaf and marching off with it into the jungle to munch at his leisure.

Every herd or family of elephants has its leader. It however by no means follows that the biggest animal in the flock is selected to fill this responsible office; for though it generally happens that he is a bull, and a "tusker" to boot, comparatively small creatures, and not unfrequently females, are found in command, so that after all it is more likely that the elephant endowed with the greatest amount of pluck and cunning assumes the part as its right. The amount of devotion•and loyalty the band evince for their chief is wonderful. They obey his merest gesture, submit to his chastisement, and protect his life at the risk of their own. If be showldbe a tusker and a particular object of respect to the hunters, and hard pressed by them, his subjects will •urround him and catch in their own carcases the bullets intended for his. They have even been known when their king has been badly wounded to club shoulders and shuffle off with him to the depths of the jungle.

That the chief is as devoted to his subjects as they to him cannot be better illustrated than by the following evidence of an European sportsman of undoubted credit. Being in the vicinity of a "tank" at which elephants came at night to drink, the gentleman in question resolved to hide and watch their manœuvres. Within five hundred yards of the tank was a thick forest; it was night and brilliant moonlight, and the watcher climbed into a thickly foliaged tree. "After waiting about two hours." says he, "an unusually large elephant issued from the dense cover and advanced cautiously across the open ground to within a hundred yards of the tank, where he stood perfectly motionless. So quiet had the elephants become, although they had been roaring and breaking the jungle throughout the day and evening, that not a movement was now to be heard. The huge vidette remained in his position still as a rock for a few minutes, and then made three successive stealthy advances of several yards, halting for some minutes between each, with ears bent forward to catch the slightest sound, and in this way he moved slowly up to the water's edge. Still he did not venture to quench his thirst, for though his fore-feet were partly in the tank, and his vast body was reflected clear in the water, he remained for some minutes listening in perfect stillness. Not a motion could be perceived in himself or his shadow. He returned cautiously and slowly to the position he had first taken on emerging from the forest. Here in a little while he was joined by five others, with which he again proceeded as cautiously, but less slowly than before, to within a few yards of the tank, and then posted his patrols. He then re-entered the forest and collected around him the whole herd, which must have amounted to between eighty and a hundred individuals, led them across the open ground with the most extraordinary composure and quietness till he joined the advance guard, when he left them for a moment and repeated his former reconnaissance at the edge of the tank. After which, and having apparently satisfied himself that all was safe, he returned and obviously gave the order to advance, for in a moment the whole herd moved into the water with a degree of

unreserved confidence so opposite to the caution and timidity which had marked their previous movements, that nothing will ever persuade me[•]that there was not rational and preconcerted co-operation throughout the whole party, and a degree of responsible authority exercised by the patriarch leader.

"I watched them with great interest till they had satisfied themselves as well in bathing as drinking, when I tried how small a noise would apprise them of the proximity of unwelcome neighbours.



I had but to break a little twig, and the solid mass instantly took to flight like a herd of frightened deer, each of the smaller calves being apparently shouldered and carried along between two of the older ones."

The elephant is by no means particular as to the quality of the water he drinks; indeed, it may be said that he seldom or never imbibes it in a pure condition, it being his habit to plunge headlong into the tank or stream, and bathe and drink at the same time. In the dry season, and when the usual water-courses are exhausted, the elephant turns *well-borer*—scooping a deep hole in the light soil, and depending on its being filled by a neighbouring spring. The animal, however, is cunning enough to be aware that if he sank his well with perpendicular sides, his great weight would crush them to the bottom as soon as he approached to drink; so he constructs it with such gradient that the water can be safely reached with his trunk, without endangering the construction by his ponderous weight.

THE WAR ELEPHANT OF THE ANCIENTS.

DURING the earlier periods of the Mogul Empire, it was the ordinary practice to enlist the strength and sagacity of the elephant for the battle-field; indeed, scarcely more than two centuries ago, the chief in India who possessed the greatest force of elephants was almost sure of victory. It was not alone the irresistible power of the elephant to break the ranks of the enemy that made it valuable to an army. Describing the elephant of war, the author of the Ayeen Akbery says: "Five plates of iron, each one cubit long and four fingers broad, are joined together by rings, and fastened round the ears of the elephant by four chains, each an ell in length; and betwixt these, another chain passes over the head, and is secured beneath; and across it are four iron spikes, with katasses and iron knobs. There are other chains with iron spikes and knobs, hung under the throats and over the breasts, and others fastened to the trunks; these are for ornament, and to frighten horses. Pakher is a kind of steel armour that covers the body of the elephant; there are other pieces of it for the head and proboscis."

When Timour, or Tamerlane, invaded the dominions of the Sultan Mahmood (A.D. 1399), the elephants of the latter were his greatest obstacle. He surrounded his camp with an enormous ditch, and a rampart of bucklers; buffaloes were tied together round the rampart, by the necks and feet, with brambles upon their heads, to be set on fire when the elephants approached. The forces of the Sultan when he set out to give Timour battle, consisted of ten thousand horse, forty thousand foot, and elephants armed with cuirasses, and poisoned daggers upon their trunks. In the wooden towers upon their backs were cross-bowmen, and archers who could fight under cover. On the sides of the elephants were flingers of fire and melted pitch, and rockets shod with iron. The dread of this array in the army of the invaders was extreme. Upon the the elephants were carried kettle-drums of brass; and these united to the din of cymbals, and bells, and trumpets, dismayed even the most dauntless. Timour fell upon the earth in prayer: he that a month before had murdered a hundred thousand captives in cold blood, besought God to give him victory. It was the inscrutable will of Him to whom the Mongol prayed, that his prayer should be answered. In the words of the Persian historian, Sherefeddin—"The elephants of the Sultan threw his own left wing into disorder; the right was repulsed, and Timour himself led his troops against the centre. The elephants fled before the sabres of the horsemen. The expert swordsmen aimed at the trunks of the



terrified animals, and many of them were strewed over the field with the slain. The alarm which the supposed invincibility of the elephants had produced was dissipated for ever. Timour's grandson, only fifteen years of age, wounded an elephant, and drove the animal before him into his grandfather's camp. The next day the invader sat on the throne of the Indian monarch, and received the homage of his new subjects. Twelve rhinoceroses and a hundred and twenty elephants were paraded before him."

In the hands of Timour, however, the captive war elephants were made to do stout service and to win for the bold Mongol many bloody victories. In less than two years the conqueror was in Syria, and in the battle before Aleppo the main body of his army was covered with a rank of elephants, to serve as a rampart. Their towers were filled with archers and flingers of Greek fire. The triumph of the elephants in this battle was a signal contrast to their defeat at Delhi. Remembering the terrible wounds inflicted on their trunks by the swordsmen, the cunning animals learnt to coil up that precious apparatus out of harm's way, and rushing upon the main body of the Syrians broke it up, and trampled it under foot like stubble. Marco Polo's account of the battle in which Kublai Khan first conquered the elephants affords some curious illustrations of the ancient Indian mode of employing this giant quadruped in war.

"It happened that in the year 1272 the Grand Khan sent an army into the countries of Vochang and Karazan, for their protection and defence against any attacks that foreigners might attempt to make.... When the King of Mien (Ava) and Bangala, in India, who was powerful in the number of his subjects, in territory, and in wealth, knew that an army of Tartars had arrived at Vochang, he took the resolution of advancing immediately to attack it, in order that by its destruction the Grand Khan might be deterred from again attempting to station a force upon the borders of his dominions. For this purpose he assembled a very large army, including a multitude of elephants, upon whose backs were placed battlements, or castles of wood, capable of containing to the number of from twelve to sixteen in each. With these and a numerous army of horse and foot, he took the road to Vochang, where the Grand Khan's army lay; and encamping at no great distance from it, intended to give his troops a few days of rest. The King of Mien, learning that the Tartars had descended into the plain, immediately put his army in motion, took up his ground at the distance of about a mile from the enemy, and made a disposition of his forces, placing the elephants in the front, and the cavalry and infantry in two extended wings in their rear, but leaving between them a considerable interval; here he took his ewn station and proceeded to animate his men and encourage them to fight valiantly, assuring them of victory, as well from the superiority of their numbers, being four to one, as from their

formidable body of armed elephants, whose shock, the enemy, who had never before been engaged with such combatants, could by no means resist. Then, giving orders for sounding a prodigious number of warlike instruments, he advanced boldly with his whole army towards that of the Tartars which remained firm, making no movement, but suffering them to approach their entrenchments. They then rushed out with great spirit, and the utmost eagerness to engage; but it was soon found that the Tartar horses, unused to the sight of such huge animals, with their castles, were terrified and, wheeling about, attempted to fly, nor could their riders by any exertions restrain them, whilst the King, with the whole of his forces, was every moment gaining ground. As soon as the prudent commander perceived this unexpected disorder, he, without losing his presence of mind, instantly adopted the measure of ordering his men to dismount, and their horses to be taken into the wood, where they were fastened to the trees. Being dismounted, the men, without loss of time, advanced on foot towards the line of elephants, and commenced a brisk discharge of arrows. So incessant were the discharges, all the weapons being directed against the elephants, and none against the soldiers in the castles, that the animals were soon covered with arrows, and suddenly giving way, fell back upon their own people in the rear, who were thereby thrown into confusion. Smarting under the pain of their wounds, and terrified by the shouting of the assailants, they were no longer governable, but without guidance or control ran about in all directions, until at length, impelled by rage and fear, they rushed into a part of the wood not occupied by the Tartars. The consequence of this was, that from the closeness of the branches of large trees, they broke with loud crashes the castles that were upon their backs, and involved in the destruction those who sat in them. Upon seeing the rout of the elephants, the Tartars acquired fresh courage, and filing off by detachments with perfect order and regularity, they mounted their horses and rejoined their several divisions, when a sanguinary and dreadful combat was renewed, ending in a complete victory by the Tartars."

Whether true or fabulous, the story of Semiramis, Queen of Assyria, and her elephants, is sufficiently curious to bear relating though it be for the hundredth time. As war with the Indian

monarch Stabrobates and about to invade his dominions, her Assyrian majesty to make up for her lack of elephants, and to strike with terror her enemies, who had reason to believe that the huge animal existed only in India, caused to be slain three hundred thousand black oxen, and their skins to be stitched together and stretched upon light frames, resembling the elephant in shape, and within each of the sham elephants was placed a camel and a man to guide its locomotion. The day of battle arrived and the armies approached each other, the fictitious elephants going before Semiramis' host. Stabrobates had however received private information of the cheat, and instead of exhibiting alarm at the approach of the giant column, charged with his horsemen fearlessly at it. However he was not quite so successful as perhaps he imagined he would have been. The horse has a natural antipathy for the camel, and when the fierce phalanx neared the invisible skin-bearers, the war-steeds scented them, and starting back, broke and fell into the greatest confusion. Semiramis had probably counted on this, and at once charging the disordered cavalry drove them back on the main army. Stabrobates was amazed, but boldly led on his infantry, and placing his elephants in front against their fictitious resemblances, charged. The movement was triumphant. The antipathy of the elephant for the camel, the terror of this animal, and its utter moral as well as physical helplessness in such assaults is well known. The elephants bore down the wretched and passive counterfeits, trampled them under foot, pierced them with their tusks and tossed their carcases in the air. Thus the tide of battle was turned in favour of Stabrobates, and Semiramis and her army were routed entirely





FLOM A IHOTOGRAPH LA MANALL

HOW HE IS TRAPPED AND TAMED.

THE African ivory trade dates from a remote period. When Rome was at the height of her barbaric splendour, she drew largely on Africa not only for cargoes of living elephants for the amphitheatre, but also for immense quantities of ivory, which was even more highly valued then than now. Scarcely an article of luxurious furniture was made without ivory entered into its construction. Africa supplied the precious commodity—was drained of it—till it became so scarce that the Romans altogether abandoned the African coastand sought tusks in another hemisphere.

In no way does man so grossly abuse the authority given him over the beast of the field as when he subjects them to unnecessary pain. When he is so guilty for the satisfaction of his avarice, or his revenge, or his ambition, it is altogether shameful and despicable; but when without reason or excuse of any sort, but merely for the gratification of his monstrous appetite for sanguinary spectacles, and the sight of living bodies mangled and bruised and horribly lacerated, he pits fang against fang, and talon against talon, and, safely removed from the contending brutes, looks coolly on, he is guilty of a savagery worthy only of his Majesty of Dahomey. Moreover, in the case of the elephant, much training and persuasion must be necessary to induce him to fight at all. With animals of a naturally pugnacious disposition, such as lions, and bears, and tigers, to put them in a pit together is sufficient to insure a battle; but with the pacific elephant, who has neither the desire to destroy life which belongs to the carnivorous animals, nor the means of gratifying the desire did he possess it, the case is altogether different.

The number of elephants shipped annually from Africa to Rome to be trained to fight each other in the circus was immense. At the dedication of his theatre, Pompey exhibited the incredible number of five hundred lions, and eighteen elephants, and a host of armed men all at one time together in the circus. In the second consulate of Pompey (B.C. 54) a number of elephants were opposed in the circus to Getulian archers; and this exhibition, according to Pliny, was distinguished by several remarkable circumstances. One of the elephants, although furious from a wound, is recorded to have seized upon the shields of his adversaries and to have thrown them in the air with a peculiar movement, doubtless the effect of training, which caused the shields to whirl round before their fall to the earth. On this occasion, too, an elephant having been killed by a single blow of a javelin through the eye, his fellows rushed forward in a general charge to save him, and coming with great force against the iron railings of the circus. broke them down and injured several of the spectators. Dion, the historian, relates that on one occasion when several elephants and other brutes were contending together in the arena, the spectators so compassionated the poor animals raising their trunks to heaven and roaring piteously, as if imploring aid of the gods, that they

rose from their seats, and disregarding Pompey's magisterial presence, demanded that the elephants might be spared. Again, when Cæsar returned to Rome, twenty elephants were exhibited fighting for their lives against a host of spearmen; on this occasion the spectators were protected from danger by the width of a deep ditch that surrounded the circus.

We have no need however to refer back to so remote a period as the Roman era for accounts of elephant baiting. In India the "sport" was always a favourite one. Bishop Heber says: "While at the court of Baroda, the rajah was anxious to know whether I had observed his rhinoceros and his hunting-tigers, and offered to show me a day's sport with the last, or to bait an elephant for me-a cruel amusement which here is not uncommon. . . . At the palace of Jyepoor we were shown five or six elephants in training for a fight. Each was separately kept in a small paved court with a little litter, but very dirty. They were all what is called 'must,' that is, fed on stimulating substances to make them furious; and all showed in their eyes, their gaping mouths, and the constant motion of their trunks, signs of fever and restlessness. Their mohouts seemed to approach them with great caution; and on hearing a step they turned round as far as their chains would allow, and lashed fiercely with their trunks. I was moved and disgusted at the sight of so noble creatures thus maddened and diseased by the absurd cruelty of man, in order that they might for his diversion inflict fresh pain and injuries on each other."

Bernier, who was an eye witness to an elephant fight that took place at Ava, thus describes it :---

"A wall of earth is raised three or four French feet wide, and five or six high. The two ponderous beasts meet one another face to face on opposite sides of the wall, each having a couple of riders, so that the place of the man who sits on the shoulders with a large iron hook for the purpose of guiding the elephant, may immediately be supplied if he should be thrown down. The riders animate the elephants either by soothing words, or by chiding them as cowards, and urge them on with their heels until the poor creatures approach the wall and are brought to the attack. The shock is tremendous, and it appears surprising that they ever survive the dreadful wounds and blows inflicted by their tusks, their heads and their trunks. There are frequent pauses during the fight; it is suspended and renewed; and the mud wall being at length thrown down, the stronger or more courageous elephant passes on and attacks his opponent, and, putting him to flight, pursues and fastens upon him with so much obstinacy that the animals can only be separated by means of *cherkys*, or fireworks, which are made to explode between them; for they are naturally timid, and have a particular dread of fire, which is the reason why elephants have been used so little in warfare since the introduction of fire-arms.

"The fight of these noble creatures is attended with much cruelty. It frequently happens that some of the riders are trodden under foot, and killed on the spot, the elephant having always cunning enough to feel the importance of dismounting the rider of his adversary, whom he therefore endeavours to strike down with his trunk. So eminent is the danger considered, that on the day of combat, the unhappy men take the same formal leave of their wives and children, as if condemned to death. They are somewhat consoled by the reflection, that if their lives should be preserved, and the king be pleased with their conduct, not only will their pay be augmented, but a sack of peyssas (equal to about two pounds sterling), will be present to them, the moment they alight from the elephant. They have also the satisfaction of knowing that in the event of their death, their pay will be continued to their widow. and that their sons will be appointed to the same situation. The mischief with which this amusement is attended, does not always terminate with the death of the riders. It often happens that some of the spectators are knocked down, and trampled upon by the elephants in the crowd; for the rush is terrible when, to avoid the infuriated combatants, men and horses in confusion take to flight. The second time I witnessed this exhibition, I owed my safety entirely to the goodness of my horse, and the exertions of my two servants."

To return, however, to the coast of Africa, and the ivory trade. The Romans having ceased their traffic, the mighty elephant was left unmolested, and once more increased and multiplied. The native having lost his customers, and requiring for his own purposes no more itory than could be made into a charm, nor fantastic ornament for himself or his squaw, hunted the animal rarely, but when European energy once more penetrated the savage elephant regions, and made overtures for renewing the ivory trade, war was again declared against the tusk bearers, and has continued ever since.

Except in a few districts of Africa, the flesh of the elephant is not eaten; with regard to the flavour and digestibility of the meat, it is hard to decide, as scarcely two Europeans out of the numbers who have had an opportunity of tasting it, agree on the subject. Tennent says: "The flesh is occasionally tasted as a matter of curiosity; as a steak it is coarse and tough; but the tongue is as delicate as that of an ox, and the foot is said to make palatable soup." Major Denham says : "The flesh looks coarse, but is better flavoured than any beef I found in the country." Le Vaillant having, in the course of his explorations, dined off baked elephant's foot, lauds it as a dish dainty enough to be set before a king. "Never," says he, "have our modern Luculluses been able to produce on their table such a dish as I have before me. In vain their gold reverses the order of the seasons; in vain they lay every country under contribution, their luxury has not reached this point." Bruce asserts, that the Abyssinians subsist for long periods on elephant's flesh. "They cut the whole of the flesh from the bones, into thongs, like the reins of a bridle, and hang them like festoons upon the branches of trees, till they become perfectly dry, without salt; and then they lay them up for their provision in the season of the rains."

It is certain, however, that if elephants were sought for their flesh alone, of every hundred now made to bite the dust, ninety nine would escape. In Great Britain alone, the annual consumption of ivory, is about one million pounds, and as the average weight of a tusk is sixty pounds, the number of male elephants alone annually sacrificed must exceed eight thousand. This, however, by no means represents the entire number slaughtered. From Ceylon, for instance, the yearly importation of ivory, does not exceed a quarter of a ton, which, despite the comparative lightness of the tusks of the Ceylon elephant, would not involve the destruction of more than eight or ten each year; but then a large quantity of Ceylon ivory finds its way to China, to say nothing of the demands of the Buddhist priests, in whose temples may be found tusks of the handsomest and best description. Besides his ivory, his living muscles and sinew. are required by man, to whose cunning wiles thousands of these giants of the forests annually succumb, and become docile beasts of burthen,

The existence of the elephant in a captive state is much more prosaic and common-place than it used to be. Once upon a stime when Eastern splendour was at its highest, and to be a Mogul was to be the most terrible man on the face of the earth, the elephant was the most indolent and magnificent and pampered brute owning man's supremacy. Slaves were retained to wait on him, the fat of the land was spread before him, and when he wrathfully trumpeted, people covered their heads, and hid from his anger. If the animal had the good luck to be afflicted with a sort of leprosy, so that his hide became white or cream-coloured,* his fortune was made everlastingly. In the seventeenth century, there existed in Siam a white elephant that kept three nations at constant war for its possession for nearly a century, and caused the death of five kings and thousands of soldiers. Tachard, who saw this pampered beast, says that it was very small and old-three hundred years old he was informed. This same Albino that might have dyed its white hide red a thousand times over in the blood that was shed on its behalf, was attended by a hundred men, who fed him out of vessels of gold, and waited on him in the splendid pavilion in which he was housed.

Fitch thus describes the treatment of some of these sacred elephants, as witnessed by him beyond the Ganges: "Within the first gate of the palace is a very large court, on both sides of which are the houses for the king's elephants, which are wonderfully large and handsome, and are trained for war and for the king's service. Among the rest he has four white elephants, which are so great a "arity, no other king having any but he; and were any other king to have any, he would send for it, and if refused would go to war for it, and would rather lose part of his kingdom than not have the elephant. When any white elephant is brought to the king, all the merchants in the city are commanded to go and visit him, on which occasion each individual makes a present of half a ducat, which amounts to a good round sum, as there are a good many merchants, after which you may go and see them at your pleasure, though they stand in the king's house. Among his titles, the king takes that of king of the white elephants. They do great honour

^{*} Mr. Balton, the author of many favourite boy's books, says in his story of THE WHITE ELEPHANT, that "it is not white, but a light mahogany colour ;" a shade or two deeper, perhaps, than her Majesty's cream-coloured horses.

and service to these white elephants, every one of them having a house decorated with golden ornaments, and getting their food in vessels of gilt silver. Every day when they go to the river to wash, each goes under a canopy of cloth of gold, or silk, carried by six or eight men, and eight or ten men go before, each playing on drums, *shawms*, and other instruments. When each has bathed aud has come out of the river, he has a gentleman to wash his feet in a silver bason, and this officer is appointed by the king. There is no such account made of the black elephants, be they never so great, and some of them are wonderfully large and handsome, and full nine cubits high."



WHILL HEPHANE

In the Birman empire the white elephant has a comfortable time of it—at least if handsome lodging and sumptuous food can insure comfort, which, after all, is more than doubtful. It will be better perhaps to speak of the Birman white elephant as "happy as a king." Major Snodgrass in his narrative of the Burmese war, says: "So completely influenced and guided are the Burmese by signs and omens, that an unusual grunt from the white elephant was at all times sufficient to interrupt the most important affairs, and cause the most solemn engagements to be broken off."

It was in the Birman empire that Mr. Crawford saw a white elephant, that had his ween or minister; his ween-dauk, or deputy

to that officer; his secretary, and other officers forming a complete staff; besides which, the products of one of the finest districts in the kingdom were set aside for his maintenance. The last-mentioned authority says, in relation to this wealthy beast: "I had here as well as in Siam an opportunity of ascertaining that the veneration paid to the white elephant is greatly exaggerated. The white elephant is not an object of worship, but is considered an indispensable part of the regalia of sovereignty. Royalty is incomplete without it; and the more there are, the more perfect is the state of the kingly office considered. Both the court and people would consider it as peculiarly inauspicious to want a white elephant, and hence the repute in which they are held and the anxiety to obtain them; the capture of a white elephant is consequently highly rewarded. The present one was first discovered by four common villagers, each of whom received two thousand five hundred ticals in money, and offices, titles, and estates. While we were at Ava, a report was brought that a white elephant had been seen; but it was stated at the same time, that its capture and transport on a sledge over the cultivated country, could only be accomplished by the destruction of ten thousand baskets of rice. His majesty is said to have exclaimed, more with the enthusiasm of an amateur than the consideration of a patriot king: "What signifies the destruction of ten thousand baskets of rice, in comparison with the possession of a white elephant ?" and the order was immediately issued for the commencement of the hunt.

White, brown, or grey, however, the elephants of ancient Asia led a life that all other quadrupeds might have envied; and whether they were worthy through leprosy to be set up as idols, or, retaining their natural colour, fit for no more honourable occupation than dawdling along in the sacred processions of the Buddhist priests, or to take some easy part in the gorgeous pageantries of some native prince, they were nothing less enviable than sleek, well cared for, indolent beasts. Their harness-chains were of gold, studded with pearls, silver bells surmounted their heads, and tinkled delicious musice to their broad-flapped ears; young maidens spread the path to be trod by their awkward feet with gay flowers, and they were clothed in garments of woven gold and scarlet.



LIEPHANT WITH HOUDAH

In modeun times, however, the elephant has fallen from his high estate. His long holiday has expired; his sides are stupt of the cloth of gold, and his head shorn of the silver bells, and he owns no more fantastic chain than the matter-of-fact iron links that secure him in his stable. Industry has more need of him than Luxury, and his vast strength is required to make roads, to draw loads, and to clear forests. The ancient elephant hunter, with his peddling system —his pitfalls, and female decoys—is no lorger equal to the task of supplying the elephant market. In these days, the ponderous quad rupeds are snared a score at a time—nay, the whole of the elephantine inhabitants of a great patch of forest, numbering frequently more than a hundred, and embracing half a dozen distinct families, are captured at one sweep.

In nearly all countries, the elephant trap used is constructed on pretty much one and the same principle. In India, it is called a *Keddah*, and in Ceylon, a *Corral* (from the Portuguese *curral*, or cattle-pen). One of the latter, witnessed by Sir Emerson Tennent, and described by him in his "Ceylon," affords the very best de scription of the way in which this wholesale snaring is managed.

The period selected for a corral is that which least interferes with the husbandry of the district, so that not until the rice is sown does the business begin. There is a twofold reason for this arrangement. Firstly, the labour of sowing at an end, the natives, of whom large numbers are necessary to secure the success of an elephant hunt, have leisure; and secondly, as the government pay only those who assist in the erection of the corral, &c. it is essential to pick a time when personal interest will induce the native farmers to volunteer their services; for the **chance** of their sown rice springing up, and ripening into maturity, **depends** pretty much on the number of wild elephants allowed to remain at large in the neighbourhood.

The corral is an enclosure, straight-sided, and about half as wide as it is long—500 feet by 250, say. A hurdle-like lattice is formed of big poles lashed together with "jungle rope," (the flexible stems of certain parasitic elimbing plants). This enormous hurdling is securely fixed in the ground, its height from the surface being about fifteen feet; the interstices of the lattice being wide enough for a man to glide through. Great forks of green timber are driven aslant outside the hurdles, and secure them against outward pressure. From each angle of the end by which the elephants approach, two lines of strong fencing are continued on either side, and cautiously



hidden by the trees. So, should the herd swerve to the right or left instead of entering by the open passage, they would find themselves stopped, and forced to retrace their steps to the gata. The position chosen for a corral is always some old and frequented route of the elephants in their periodical migrations in search of water, and such trees and brushwood as are included within the hurdles are 'left undisturbed—especially on the side the elephants are to approach.



DRIVEN INTO THE CORRAL.

As many as two or three thousand natives are employed to "beat ap" the game. According to the size of the patch of forest, and the number of elephants known to be contained in it, so the beaters fetch an entire circuit round the devoted spot. At first they make no great display, only just enough to induce the great, timid beasts to move slowly in the direction it is required they should take. Perhaps an entire month is so passed; in the course of which, the living ring has contracted—a mere foot at a time—to half its first dimensions. Then the elephants become alarmed, and the beaterbecome bold. Ten paces apart all round the ring great fires are lit, and kept burning night and day; and anxious "headmen" gallop about perpetually to see that not one of the legion of beaters flags in his duty, for if the imprisoned brutes once discovered an outlet, the portals of the "corral" might yawn in vain for that season. Two months," says Tennent, "had been spent in these preparations,

and they had been thus far completed on the day when we arrived, and took our places on the stage that had been erected for us,
overlooking the entrance to the corral. Close beneath us a group of tame elephants, sent by the temples and the chiefs to assist in securing the wild ones, were picketed in the shade, and lazily fanning themselves with leaves. Three distinct herds, whose united numbers were variously represented at from forty to fifty elephants, were inclosed, and were at that moment concealed in the jungle within a short distance of the stockade. Not a sound was permitted to be made, each person spoke to his neighbour in whispers; and such was the silence observed by the multitude of the watchers at their posts, that occasionally we could hear the rustling of the branches as some of the elephants stripped off their leaves."

"Suddenly the signal was made, and the stillness of the forest was broke by the shouts of the guard, the rolling of the drums and tom-toms, and the discharge of muskets; and beginning at the most distant side of the area, the elephants were urged forward toward the entrance into the corral.... Dry leaves and sticks were flung upon the watch-fires till they blazed aloft and formed a line of flame on every side, except in the direction of the corral, which was studiously kept dark."

Their great heads fairly turned by the flames, and shricks, and thunder of savage music, the leviathan herd rush headlong tc the only spot that promises quiet and seclusion—the pitchy-dark entrance to the corral. The great tusked leader leads the way, and presently the corral gates are closed on the whole number. Then, as the striking of a single match, great bonfires surrounding the trap suddenly flare up. The effect is terrific.

"The elephants first dashed to the very extremity of the enclosure, and being brought up by the powerful fence, started back to regain the gate, but found it closed. Their terror was sublime; they hurried round the corral at a rapid pace, but seeing it girt by fire on every side, they attempted to force the stockade, but were driven back by the guards with spears and flambeaux; and on whichever side they approached, they were repulsed with shouts and discharges of musketry. Collecting into one group they would pause for a moment in apparent bewilderment, then burst off in another direction as if it had suddenly occurred to them to try some point which they had before overlooked; but again repulsed, turned to their forlorn westing place in the centre of the corral."

HOW HE IS TRAPPED AND TAMED. 47

As no more was to be done that night, the company occupying the stage retired. At daylight when Sir Emerson Tennent visited the corral, he found the captives dead beat and subdued, and huddled together in a group, while "the enclosure on all sides was surrounded by crouds of men and boys with spears or white peeled wands about ten feet long."

Meantime preparations were being made to conduct into the corral the trained tame elephants who were to act as Delilahs to the entrapped Sampsons. One of these crafty females was named Siribeddi, and was allowed to be the cleverest brute in Ceylon, and certainly she was guilty of nothing on this occasion to damage her reputation.



Having entered the corral noiselessly, she moved slowly along, with a sly composure and an assumed air of easy indifference; sauntering leisurely in the direction of the captives, and halting now and then to pick a bunch of grass or a few leaves as she passed. As she approached the herd, they put themselves in motion to meet her, and the leader having advanced in front and passed his trunk gently over her head turned and pased slowly back to his dejected companions. Siribeddi followed with the same listless step, and drew herself up close behind him, thus affording the nooser an opportunity to glide under her and slip the noose over the hind foot of the wild one. The latter instantly perceiving his danger, shook off the rope and turned to attack the man. He would have suffered for his temerity, had not Siribeddi protected him by raising her trunk and driving the assailant into the midst of the herd.

Again the terror stricken elephants gathered in the centre of the corral, when two more decoys were sent to Siribeddi's assistance, and between them they managed to single out the biggest fellow of the captive company. This time the nooser was more successful; the loop was hitched over the brute's hind leg, and the nooser together with Siribeddi's two assistants sheered off, leaving the former accomplished animal (to whose collar was attached the other end of the looped cable) to secure her prisoner to a tree apart from the rest of the herd. Calm as a human pig-jobber, who hauls by the leg the poor porker to the slaughter-house, and with as much indifference to its squeals and struggles, Siribeddi hauled off her lumbering charge —tail first—toward the proper tree. Giving her end of the rope one



SIRIBEDDI'S EXPLOIT.

turn round the trunk of the tree, she endeavoured to haul the beast at the other end, close up; this however was beyond her strength, so one of the tame ones who from a distance had been critically observing the performance, and saw Mrs. Siribeddi's dilemma, came to the rescue; she coolly confronted the bellowing prisoner, placed her shoulder to his, and "backed" him, while every inch of rope thus gained was hauled in by the female at the tree, till he was fairly brought to a stand at the foot thereof. The other tame elephant now came up, and, shielded by the three, the nooser fastened his "jungle-ropes" round the remaining three legs, securing the other end of each rope to a tree, and the capture was complete.

Then the decoys moved off to attend to their business, leaving the captive alone, and the brute seemed suddenly to become alive to the extent of his misery. Says Tennent: "As long as the tame ones stood beside him he remained comparatively calm and almost passive under his sufferings, but the moment they moved off and he was left utterly alone, he made the most surprising efforts to free himself and rejoin his companions. He felt the ropes with his trunk and tried to unfasten the numerous knots; he drew backwards to liberate his fore-legs, then leaned forward to extricate the hind ones, till every branch of the tall tree vibrated with his struggles. He screamed, in his anguish, with his proboscis raised high in the air, then falling on his side he laid his head to the ground, first his cheek and then his brow, and pressed down his doubled-in trunk, as though he would force it into the earth; then suddenly rising he balanced himself on his forehead and his fore-legs, holding his hind feet fairly off the ground. This scene of distress continued some hours, with occasional pauses of apparent stupor, after which the struggle was from time to time renewed abruptly and as if by some sudden impulse; but at last the vain strife subsided, and the poor animal stood perfectly motionless, the image of exhaustion and despair."

Among the elephants trapped in the corral in question, were two little creatures about ten months old. When the dam of the smallest of the two was noosed and being dragged along by the decoys, baby elephant kept close to her side, consoling her and quarrelling with the noosers and butting them with its harmless head. It was driven back to the herd, and there it sought comfort of another elderly female, lying across her forehead while she caressed it and stroked it with her trunk. As soon, however, as the noosers had properly secured and left its parent, up got the young one and scampered to her side, and was finally dragged off screaming and holding out

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its trunk towards its mother piteously. Wonderfully, too, they resemble infantile bipeds; for, says Tennent, "the most amusing thing was, that in the midst of all their agony and affection, the little fellows seized on every article of food that was thrown to them, • and ate and roared simultaneously."

For three days the captives lay there, the elder ones for more than half the time proudly spurning and trampling under foot the food offered them by their captors. Some stood motionless as though overcome by stupor, others never ceased to chafe and writhe with feverish impatience, while others, again, lay prostrate in the mud, moaning their despair, and gently beating the ground with their trunks in the extremity of melancholy. Round about the verge of the corral, big fires blazed at night, and dusky watchers paced to and fro with their spears and white sticks, or reclined about the fires till their turn for duty came. In the day-time the natives for miles round made holiday. By thousands they assembled round the great hurdles; old women with their old husbands; young women with brown babies lashed to their backs; and girls, fantastically dressed, and mincing maidens were there, whose genteel and well-oiled sweethearts called their attention to sights worth seeing, or joined them in a dance to the mellow music of the Kandyan flute. The captive leviathans within the enclosure could hear the flute, and that some of their ears were not unmusical was evident by the little piggy eyes directed toward the player, and the placid wagging of the great flaps that covered their organs of hearing.

When the captive's spirit is sufficiently subdued, a stall is apporticned him between that of two half-tamed elephants, and he



soon returns to his food. The stable servants are each armed with a *hendoo* the point of which is held towards the wild elephant's trunk, while one or two others rub his back and keep up a humdrum chant, in which the poor brute is addressed as the chanter's "mother" or "son," according to its age and sex and

enjoined to behave itself as mildly as possible. In most cases, however, the wild uncouth creature is callous to this politeness. and strikes out furiously with its trunk; each time, however, the conder weapon alights on the points of the spiky hendoos, and presently becomes so sore, that it is curled up and placed out of harm's way, and an important step towards his subjugation is accomplished. Then he is allowed a bath, an operation which he delights in in a free state, but decidedly objects to for the first few weeks of his slavery. He is escorted down to the tank by two trained elephants, where his legs are hobbled, and he is goaded with the merciless hendoo till he consents to lie down. Nor is the bath the only thing necessary to a newly caught elephant. The skill of the elephant doctor is for many weeks needful to heal its poor legs, that are certainly cut to the bone by the coarse vegetable rope with which he was first noosed; sometimes, indeed, these wounds will remain for months and even years. In most cases, however, within three months of his capture the huge brute is found treading clay in a brick-field (generally his first occupation), or in company of a thoroughly tamed brother, drawing a great waggon.



CROSSING & RIVER.



I IPHANT IN LIDDAH OF

HOW HE IS HUNTED FOR HIS IVORY

As has been already stated, the prideful Romans in the prime of their barbane splendour so unceasingly hunted the African elephant for the sake of his ivory tusks, that the numbers of the animal were thinned almost to extinction. Left once more to themselves, however, regeneration was an easy matter. His mode of hving interfered with the peace and comfort of not one of his four-footed forest companions. Of the hon, the leopard, and his other flesheating neighbours, he went in no fear, for how hungry soever they might be, the flesh of his mighty carcase was above their daring—the elephant might safely crop the green boughs of a tree, in the shadow of which the tawny monarch of the forest was grumbling over the bones left from yesterday's dinner; and so his peaceful career might have continued, had it not occurred to some cunning mortal to invent that magic dust, called gunpowder.

Nothing more disastrous could have occurred to the savage portion of brute creation than the invention in question, and before all others, this remark must apply to the elephant and other colossal animals, whose tenacity of life is almost as remarkable as their enormous size. Before the deadly dust was known, the elephant, possessed of almost as much intelligence as his savage human foe, could afford to despise his puny weapons; darts and arrows availed not against his vital parts, and he could encounter the solitary hunter armed with his javelin with as little concern as might a grave mastiff an old woman flourishing her darning needle.

But against a hundred old women and a hundred darning needles the mastiff would find himself in a sorry predicament; every vein in its body would be punctured, and its life drained out by driblets. So it was with the elephant in ancient times, when a score of savages each bearing a sheaf of spears set upon him—so it is to this very day in regions so barbarous and remote from civilization, that the murderous bullet is unknown. On the banks of the Zambesi in Southern Africa, Livingstone saw an elephant hunt, and pictures the poor animal with red and streaming sides, bearing in her carcase so many javelins that she looked more like a gigantic porcupine than an elephant, and finally dying from sheer loss of blood.

There is, however, in South Africa, a solitary hunter whom the elephant can by no means afford to despise. This cunning savage makes of the iron of the country, a blade nearly two feet long, double-edged, and sharp as a razor; this he lashes to a shaft as thick as one's wrist, and as long as a stable-broomstick. So armed, he selects a tree in an elephant-track, and makes himself a little stage amongst its branches, and thereon lodges till a fated brute passes beneath. Then, like a gleam of lightning, descends the long knife into the elephant's carcase, and though the wound does not at once kill, the hunter has but to descend from his lurking place, and follow the maddened brute, who with the blade in his side seeks to hide himself in the depths of the forest. At every step, however, the long handle knocks against the trees and brushwood, and the dreadful gash is widened and deepened, and the blood issues from it till, faint and helpless, the great creature sinks to his knees, and the solitary hunter can despoil him at his leisure.

"Hamstringing" is another mode favoured by the native hunters of Africa. Sometimes this is performed afoot, but generally with the aid of a horse. Two hunters—both naked as when born—mount him together, sometimes with a saddle, and sometimes on the steed's bare back. The rider who sits in front carries no more formidable arms than a switch, but the behind man has a broad sword-blade, with a strip of hide bound round one end of it for convenient handling. As soon as an elephant is seen, the horse is galloped towards it, and if it flees it is pursued till brought to a stand, and then the man with the switch proceeds to abuse it with all his might. He invents wicked stories concerning the wild elephant's respectable mother; declares that he slew its grandfather, its father, and several of its uncles and brothers, and that now he has come to slay it—without doubt the greatest ass of the entire family.

Every word of these reproaches, the hunter believes the wild elephant to understand, and when it trumpets defiantly and charges him, attributes it to sheer aggravation. Charge him it does, however, and this is exactly what the man with the switch desires, and by a series of cunning manœuvres he manages so that himself and his horse, shall entirely engage the elephant's attention; meanwhile he who sat behind with the broad sword has slipped silently to the ground, dodges behind the elephant, and with one swinging cut severs the tendon, just above the brute's heel. In a moment the swordsman vaults to the horse's back, and away the couple ride to fetch assistance, quite sure of finding their crippled game at the exact spot where it was stricken.

After all, however, it must be acknowledged that, although more destructive to their number, the bullet is more merciful than the sword or spear. Though, indeed, one must peruse the hunting exploits of more than one sportsman, or he may arrive at an altogether different conclusion. This would, I am afraid, be the case, were the doings of Roualeyen Gordon Cumming alone to be reviewed. He might, for instance, be apt to find another term than "Sport" for the following incident related as having occurred to the above gentleman. Having planted a bullet in the shoulder bone of an elephant, and caused the agonized creature to lean for support against a tree, the mighty hunter proceeds to unpack his kit and brew a little coffee. Having refreshed himself with the comforting beverage-taking observations of the tortured elephant's spasms and writhings, between the sips-"I resolved to make experiments on vulnerable points, and, approaching very near, I fired several bullets at different parts of his enormous skull. He only acknowledged the shots by a salaam-like movement of his trunk.

with the point of which he gently touched the wounds with a striking and peculiar action. Surprised and shocked to find that I was only prolonging the sufferings of the noble beast, which bore its trials with such dignified composure, I resolved to finish the proceeding with all possible despatch, and accordingly opened fire upon him from the left side. Aiming at the shoulder, I fired six shots with the two-grooved rifle, which must have eventually proved mortal; after which I fired six shots at the same part with the Dutch six-pounder. Large tears now trickled from his eyes, which he slowly shut and opened; his colossal frame shivered convulsively, and falling on his side he expired."

All this is the more inexcusable as, over and over again, Mr. Cumming narrates how he slew this and that giant beast with a single well-directed shot. The bravery of his exploits is altogether obscured by the "blood" by which they are deluged, and the "sportsman" is altogether overshadowed by the wholesale carcase butcher and ivory huckster.

As to the precise spot at which an elephant hunter should aim his bullet, opinion widely differs. One authority says, "Hit him behind the ear, or beware the consequences." Another (Andersson, of Lake Ngami celebrity), "I found the best point to aim at was the shoulder, either behind or in the centre, near to the lower edge of the ear." Another hunter emphatically declares that no plan is equal to that of "shattering his fore-leg, and reducing him at once to utter helplessness;" while among the Singhalese, says Sir Emerson Tennent, "the practice is to aim invariably at the head; and the sportsman finds his safety to consist in boldly facing the animal to within fifteen paces, and lodging a bullet either in the temple or in the hollow over the eye, or in a well-known spot immediately above the trunk, where the weaker structure of the skull affords easy access to the brain."

There would certainly seem to be immense danger attached to the Singhalese system, but experience proves the contrary. For the sake of the few shillings' reward offered by the government, they were shot, from 1849 to 1856, at the rate of nearly a *thousand* each year; and, as the coroners' returns prove, not more than *three* individuals died in any one year from hurts received of elephants, wild or tame. It is, however, only fair to remark, that African sportsmen generally agree that the elephant of Ceylon is by no means the most formidable sort. Certainly the African brute is the largest, and differs from all others in the size of its ears. Livingstone makes mention of one that was shot on the Zambesi, whose ear-flaps measured *four feet* across, and *four feet five inches* in depth. The above authority also asserts that he has seen a native, overtaken by a sudden rain-storm, find snug and complete shelter under one of his elephant's ears.



In those regions of Africa where the elephant is eaten, the cutting ap of a carcase must be a curious spectacle. It is thus described by a modern traveller :--- "The rough outer skin is first removed in large sheets from the side that lies uppermost. Several coats of an under skin are then met with. This skin is of a tough and pliant nature, and is used by the natives to make water-bags. They remove this skin with care, and it is formed into bags by gathering the corners and edges, and transfixing the whole on a pointed wand. The flesh is then removed from the ribs, when the hatchets come into play, with which they chop through, and remove individually, each colossal rib. The bowels are thus laid bare, and in the removal of these the leading men take a lively interest, for it is throughout and around the intestines that the fat of the elephant is mainly found. This fat is chiefly used in cooking their bilitonge (dried strips of clephant flesh), and they also eat it with their corn. After the bowels are removed, the operators set about finding the fat that lines the inside of the flesh; and to accomplish this, men get into the cavity in the side (like getting into a boiler through the man-hole), and hand up the fat in great broad pieces to their comrades."

The same authority states that, during the process of carving the carcase, the operators' delight is covering themselves with the blood, "each man taking up the fill of both his hands, and spreading it over the back and shoulders of his friend." After that, our terrible market slaughterman, with his greasy thigh-boots, his belt full of sharp knives, his face speckled red, and a flaring candle surmounting his forehead, becomes quite a mild picture.

In remarkable contrast to the few individuals killed in elephant warfare, stands the fact, that nearly everybody who ever handled a rifle against this giant beast, and wrote about it, has at least one marvellous escape to relate. Many of them, however are so very wonderful—so suggestive of the idea that the bow—the long one rather than the rifle, has been used—that I shall not venture to quote them. There is no need; enough of marvellous adventure can be culled from the experiences of modern travellers—men whose credit is beyond a question.

Although not the most modern, certainly one of the best stories of elephant chase is related by Lieutenant Moodie. At the time of the adventure, the experience of the lieutenant as regarded elephant hunting was small-indeed, he had never seen but one of the mighty quadrupeds slain, and that was only the day before. However, this little taste of the noble sport was sufficient to set him yearning for another bout; and when early the next morning the presence near the camp of a large drove of elephants was announced, the narrator lost no time in equipping for the sport, and set off to join the" hunters. On his way, however, he got lost in the jungle, and saw nothing of those of whom he was in quest until he heard a gun fired and heard his own name shouted, together with crics of "passop !" (look out). At the same time, he was aware of a rending and crashing of jungle stems, and presently a whole troop of elephants, headed by a mighty female, came bearing down directly towards Being rather uncertain of his aim, the lieutenant thought him. it best to step out of the path and run in a contrary direction. He did so, but in looking back discovered to his horror that the elephants, too, had altered their course and were in full chase of him, the great female still in front and trumpeting like a very

demon, and three others on either side of her evidently fully bent on mischief. Under the circumstances, Mr. Moodie resolved still to reserve his fire, and increasing his speed made for the bank of a small river with the idea of swimming across and taking refuge among the rocks that skirted its opposite side. Before, however, he could reach the stream, the thundering footsteps came close up behind, and the screaming and trumpeting of the seven mighty beasts became deafening. There was no other chance, so the lieutenant, screwing up his courage, faced round, shouldered his gun, and let fly at the big female. Unfortunately, however, the powder did not immediately ignite; and the aim being thus spoiled the bullet merely grazed the head of the advancing elephant, who, halting only for an instant, came on again more vengefully than before.

"I fell-I cannot say whether struck down by her trunk or not. She then made a thrust at me with her tusk. Luckily she had only one, and luckier still that one missed me. She then caught me with her trunk by the middle, threw me beneath her fore feet and knocked me about between them for a little space. I was searcely in a condition to compute the number of minutes very accurately. Once she pressed her foot on my chest with such force, that I actually felt the bones as it were bending beneath the weight, and once she trod on the middle of my arm, which fortunately lay flat on the ground at the time. During this rough handling, however, I never entirely lost my recollection, else I have little doubt she would have settled my accounts with this world; but owing to the roundness of her foot I generally managed, by twisting my body and limbs, to escape her direct tread. While I was still undergoing this buffeting, Lieutenant Chisholm and Diedrick, a Hottentot, had come up and fired several shots at her, one of which hit her in the shoulder, and at the same time, her companions retiring and screaming to her from the edge of the forest, she reluctantly left me, giving me a cuff or two with her hind-feet in passing. I got up, picked up my gun, and staggered away as fast as my aching bones would allow; but observing that she turned round and looked back towards me before entering the bush, I lay down in the long grass, by which means I escaped her observation."

Murderous as was the behaviour of the she elephant above alluded to, she was presently after the heroine of a tragedy, and as such so comported herself as to induce one to forgive her previous delinquency. It seems that while the crowd of hunters, including Mr. Moodie's brother, were gathered round him listening to his marvellous story, a big male elephant, who was probably related to the female and had been an eye-witness to the indignities to which she had been subjected, rushed from his hiding-place, and, seizing a soldier from the company, carried him off, and in a few moments crushed him into a shapeless mass beneath his ponderous knees. What followed will be best related in Lieutenant Moodie's own language.

"Shortly after this catastrophe, a shot from one of the people broke this male elephant's left fore-leg, which completely disabled him from running. On this occasion we witnessed a touching instance of affection and sagacity in the elephant, which I cannot forbear to relate, as it so well illustrates the character of this noble animal. Seeing the danger and distress of her mate, the female before mentioned (my personal antagonist), regardless of her own danger, quitted her shelter in the bush, rushed out to his assistance, walked round and round him, chasing away the assailants and still returning to his side and caressing him, and when he attempted to walk she placed her flank under his wounded side and supported him. This scene continued nearly half an hour, until the female received a severe wound, which drove her again to the bush, where she speedily sank exhausted from the loss of blood, and the male soon after received a mortal wound and sank to the earth."

Few sportsmen have been placed in a more terrible predicament than was Mr. Andersson while halting at Kobis, on his road to Lake Ngami. Hearing that elephants and rhinoceroses were in the habit of frequenting certain pools to drink, he set out alone one moonlight night, carrying a blanket and two or three guns, and took up his position on a strip of land that divided two pools. "Just as I had completed my arrangements," says he, "a noise like that of the passage of artillery broke the stillness of the air—it evidently came from the direction of one of the numerous stony paths or rather tracks leading to the water. Raising myself from my recumbent position, I fixed my eyes steadily on the part of the bush whence the strange sounds proceeded, but for—some time I was unable to make out the cause. All at once, however, the mystery was explained, by the appearance of an immense elephant, immediately followed by others, amounting to eighteen. Their towering forms told me at a glance that they were all males.

"Crouching down as low as possible, I waited with beating heart and ready rifle the approach of the leading male, who, unconscious of peril, was making straight for my hiding-place. The position of his body, however, was unfavourable for a shot; and knowing from experience that I had little chance of obtaining more than a good single one, I waited for an opportunity to fire at his shoulder, which, as before said, is preferable to any other part when shooting at night. But this chance, unfortunately, was not afforded me till .is enormous bulk towered above my head. The consequence was that, while in the act of raising the muzzle of my rifle, my body caught his eye, and before I could place the piece to my shoulder, he swung himself round and, with trunk elevated and ears spread, desperately charged me. It was now too late to think of flight, much less of slaying the savage beast. My own life was in imminent jeopardy; and seeing that if I remained partially crect he would inevitably seize me with his proboscis, I threw myself on my back with some violence, in which position and without shouldering the rifle I fired upwards at random towards his chest, uttering, at the same time, the most piercing shouts and cries. The change of position, in all human probability, saved my life; for at the same instant the trunk of the enraged animal descended precisely on the spot where I had been previously crouched, sweeping away the stones (many of a large size) like so many pebbles. In another moment his broad fore-feet passed directly over my face.

"I now expected nothing short of being crushed to death; but imagine my relief when, instead of renewing the charge, he swerved to the left and moved off with considerable rapidity—most happily without my having received other injuries than a few bruises occasioned by the falling of the stones. Under Providence, I attribute my extraordinary escape to the confusion of the animal caused by the wound I had inflicted on him, and to the cries elicited from me when in my utmost need."

A still more wondrous story is told by a gentleman, who adopts the *wbriquet* of the "Old Shekarry" (a "Shekarry" is an Indian game tracker), and who lately returned from a hunting tour, through the "Hunting Grounds of the Old World." While in the Annamullay forest, Southern India, accompanied by his native "beater" Goolooloo, he had already laid low two bull elephants, when his beater once more gave warning; and hardly had his master time to snatch up his gun, ere a male and seven female elephants dashed past, not more than fifty paces distant. Says the Old Shekarry :---

"I threw up my rifle and, aiming behind the ear, let drive a couple of snap shots, for the chance of stopping him, the last of which took effect, for it brought him to his knees; but he immediately regained his legs and, separating from the females, tore frantically through the forest, which he made resound with his angry roar. I snatched my second spare gun from Goolooloo, (a heavy twoounce double rifle), and, jumping down the bank, ran with all speed to cut him off at the gorge, which was extremely narrow, as the torrent made its way between a huge cleft in the rock, through which I knew he must pass, in order to join the rest of the herd. I was running down the bed of the stream, on either side of which rose high banks, when I heard a rattling noise among the stones behind me, and on turning my head, I saw the wounded bull tearing after me, with his eyes flashing fire and his tail straight on end, about forty paces distant. Speed I knew would not avail me; he would have been down upon me before I could have clambered up the bank, so I swung round and dropped on my knee, to take a more steady aim. On he charged with a fiendish shriek of revenge; I let him come to within fifteen paces, when I let drive, aiming between his eyes-my favourite shot-but whether it was that I was unsteady, being breathless from my run, or that my rifle, which weighed sixteen pounds, was too heavy, I know not; but my left arm dropped the moment I pulled the trigger (not from nervousness, for I was perfectly cool, and never lost my presence of mind for a moment), and my shot took effect four inches too low, entering the fleshy part of the root of the trunk, instead of penetrating the brain. It failed to stop him; and before I could get out of the way the huge brute was on me. I saw something dark pass over me, felt a severe blow, and found myself whizzing through the air; then all was oblivion.

"When I came to, I found myself lying on my face, in a peel of blood, which came from my nose, mouth, and ears. Although nearly choked with clotted gore, a sense of my perilous situation flashed

across my mind, and I strove to rise and look after my antagonist, but he was nowhere to be seen. I picked myself up, and although fearfully bruised and shaken, found that no bones were broken. I was lying on the top of the bank, although quite unable to account . to myself how I got there. In the dry bed of the nullah I saw my rifle, and after much painful exertion managed to crawl down and get it. The muzzle was filled with sand, which I cleared out as well as I could; and then, sitting by the edge of the stream, began to wash away the blood, and bathe my face and head. Whilst so employed, I heard a piercing shrick, and saw Goolooloo rushing towards me, closely followed by the infuriated elephant, who was almost mad from the pain of his wounds. Luckily, a hanging branch was in his way, and with the agility of a monkey he caught hold of it, and swung himself up the bank, where he was safe. The elephant, baulked of his victim, rushed wildly backwards and forwards two or three times, as if searching for him, and then, with a hoarse scream of disappointment, came tearing down the bed of the nullah. I was directly in his path, and powerless to get out of the way. A moment more, and I saw that I was perceived, for down he charged on me with a roar of vengeance. With difficulty I raised my rifle, and, taking a steady aim between his eyes, pulled the trigger-it was my only chance. When the smoke cleared away, I perceived a mighty mass lying close to me. At last I had conquered. Soon after this I must have sunk into a swoon, for I hardly remembered anything until I found myself in my hut.

"My body was very much swollen from the severe blow I had received, my back being black from the waist upwards. A native remedy was applied, and my back covered with leeches, but I was entirely laid up, and had to return to Ooty to recruit."

Now that the elephant has played his part in the "Wild Sports of the World," and another actor in our great Natural Drama waits to be introduced, we are anxious to refer once again to the wondrous structure and intelligence of the animal whom we have just seen under a variety of aspects. Fruitless, however, it would be, and to our mind unpleasant, to argue the sublime works of the Creator, and to speculate how any alteration of the works of His hands would have "answered." From the tiny ant to the huge elephant. Perfection is the simple and only term that expresses animal formation

-Nature is never imperfect, never superfluous. The many-legged centipede deprived even of an atom of a limb, would halt and go lame; the shaggy bison of all his million hairs, has not one too , many; and of the host of minute tubes composing the elephant's trunk. each has its functions, and if maimed, the whole is an imperfect machine, and so remains, without Nature consents to repair the injury. The intelligence of the clephant is as wonderful as its structure. Viewing with our ignorant eyes its vast bulk, its shapeless legs, its huge tun-like body, its little head, and swinish eves and ears, it does not seem a promising casket, yet, as the dullest schoolboy knows, it occasionally exhibits instinct so near akin to reason, that one is puzzled to know where the line may be drawn. The threadbare stories of the tailor who pricked the elephant's trunk with his needle, and of the weak elephant, who watched his opportunity to push his big bully brother into the well, might be here repeated, as illustrative of the above-mentioned difficulty; but it is not necessary, as there is a better story than either, related by Tennent. Through ill usage and bad fare, an elephant had fallen down in the road, and its attendants, attributing its behaviour to laziness, and not illness, put a chain about it, and attaching one end of the chain to another elephant, bade him haul up the lazy beast. At the first pull, however, the poor creature groaned so plaintively, that the puller saw at once how the case stood, and immediately dropping the chain, faced the bystanders, and trumpeted his indignation at their brutality; then turning to the prostrate one, he tenderly loosed the iron links from about its emaciated carcase.

CONSIDERING that our account of the Elephant would be incomplete without a portrait of the author on whom we have drawn so largely for our information, we applied to Sir Emerson Tennent to give a sitting to Mr. Mayall, the photographic artist. Sir Emerson very obligingly acceded to our request, and we are anxious to acknowledge this courtesy, and also to express the satisfaction we feel that the majority of the Engravings of the Elephant have received the commendation of one who is so perfectly acquainted with the animal. We quote the following from an article prepared for "Beeton's Dictionary of Universal Information":—

TENNENT (Sir James Emerson), a modern statesman and writer, who after concluding his educational career at Trinity College, Dublin, repaired to Greece, whither he had been attracted by an ardent sympathy for the cause of Greek independence. Three eloquent and remarkable works resulted from this journey: "Greece in 1825," "Letters from the Ægean," and the "History of Modern

Greece;" the last of which contained some curious details relative to the establishment of the monarchy. Shortly after the appearance of the last work, he was called to the bar at Lincoln's Inn, but never practised. Until 1832 he had borne only his paternal name of Emerson, but having in the previous year married the daughter and heiress of William Tennent, a wealthy banker of Bel-" fast, he, upon succeeding to the estates of that gentleman, assumed the additional name of Tennent. In the latter year he entered the House of Commons as member for Belfast, and was returned a second time in 1835. He lost his seat at the general election of 1837, but regained it upon petition; in 1841 he was unseated upon petition, but was immediately afterwards again returned, and continued in the House till 1845, when he received the honour of knighthood, and was appointed Civil Secretary to the Colonial Government of Ceylon. At a subsequent period he became Lieutenant Governor of Ceylon. After his return to England he was, in 1852, returned member for Lisburn, and received the appointment of Secretary to the Poor Law Board, an office which he resigned to accept that of Joint Secretary to the Board of Trade. His active parliamentary and official life did not prevent his frequently appearing as the author of valuable works, the chief of which were "Belgium," "A Treatise on the Copyright of Designs for Printed Fabrics," "Christianity in Ceylon," and "Wine, its Uses and Taxation." In 1859 he produced his "Ceylon," which speedily became one of the most popular works of the day, and was translated into several foreign languages It is distinguished among even the best works of its class for its correct and extensive series of observations upon natural history. Upon the habits of one animal-the elephant-the book throws a world of light, and so greatly is our knowledge of this gigantic quadruped increased, that it is not too much to say of the book that, until its appearance, we were but dimly acquainted with perhaps the most interesting animal of the brute creation. In the House of Commons, Sir James Emerson Tennent distinguished himself by carrying the Copyright of Designs Act, for which boon the manufacturers of the United Kingdom presented him in 1843 with a testimonial and a service of plate of the value of £3,000. Born at Belfast, 1804.





THE LION.



STRUCTURE OF THE LION

THE high degree of intelligence and activity exhibited by carnivorous quadrupeds entitles them to take precedence of the herbivorous races. Against this opinion, indeed, may be quoted scores of instances of wondrous cunning, and sugacity, and docility, displayed by the horse, the elephant, the camel, &c.; but the mere fact that such instances are remarkable is of itself sufficient evidence of the general intellectual inferiority of the animals quoted, and indeed of the entire family represented by them. On the other hand, so far from there being occasion to hunt up cases of peculiar intelligence among the widely spread carnivorous tribes, the difficulty would be to find a dull dog, or a cat incompetent to conduct its business.

And herein, as in everything, shines the surpassing wisdom of the Creator. The ox that is yoked to the plough, the horse that moves with us in the every-day paths of life, the camel, on whose

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patient docility frequently depends the lives of scores of desert travellers; all these are endowed with just sufficient understanding to chey the commands of man—to lie down, to rise up, to put out their utmost speed at a shake of the rein—and possessing not a single propensity or inclination that man is not empowered to check or subjugate. But with the carnivora the case is very different. Although, as was decreed, they are unable to contend against man's authority, they disdain his patronage and protection, maintaining their liberty with their lives, it forming no part of the Divine scheme that they should ever forget their thirst for blood, or become tame.



SEPLETON OF THE LION.

The domestication of the dog, an undoubted member of the digitade carnivora, may be quoted against the above, but there can be no doubt that the dog was specially provided for the use of mankind. In the case of the dog, it has not been merely given to man as a servant endowed with zeal and sagacity, but an efficient helper in difficulties he is incompetent to meet. In bodily strength man is unable to cope with ferocious enemies that surround him on all sides; his senses are imperfect when compared with some of the lower animals; in speed he is outstripped by the very creatures appointed to be his food; how, then, are all these deficiencies to be compensated? The dog has been placed at man's disposal: its instincts, its size, its form, its senses, and its corporeal attributes, me all subjugated to his control; and thus, whatever aid he may require, is to be obtained by the cultivation of its faculties. The cat has no such claim to be considered a purely domesticated animal, or one reclaimed from its primal savagery. It is merely a beast of prey, availing itself of the advantages of civilization, while, at the same time, it is faithful to the dictates of its bloodthirsty and unsympathetic nature. The instincts of the cat are much more stubborn than its fur, and though this may be cultivated to silky softness, and Grimalkin lie all along your hearth-rug, innocent as a lamb, and purring in the fulness of its contented heart, you have but to turn your back, and lo! there rises from the hearth before the affrighted eyes of your canary, or parrot, a grim monster with bare teeth, and bristling tail, as anxious to rend flesh, and bathe its nose in warm blood, as the tiger that crouches and glides through the Indian jungle.

Of the wondrous strength of the lion, nearly all that can has already been said. By one blow of his tremendous fore-paw he will bring a running horse to a dead halt, with its shoulder-bone shattered; and the skull of a man, curiously strong as it is, the lion can crush beneath his foot, as you or I could crush a cherry-stone. He can take a dead buffalo by the neck, and partly dragging, partly carrying it, make off at a half-run; first, however, disembowelling it, that it may be less cumbersome. It is even asserted, on credible authority, that, leaping over a high farm-fence, it will slay a bullock, and, dreading to stay and devour it on the spot, will bring it to the wall, raise it from the ground in his mouth, and by a mighty effort of his great muscles, toss it up so that it shall fall without the fence. Quick as lightning the poacher follows the plunder, and with it he is off in a twinkling.

The most important adjunct to the terrible strength of the lion, and indeed of the whole of the feline carnivora, is the noiselessness with which they are enabled to approach their prey; and the mechanism that provides for this at the same time answers an equally important purpose, viz., the keeping the animal's claws constantly clean, and sound, and sharp. Three elastic ligaments, derived from the penultimate joints of the toe, are inserted into the last phalanx in such a manner, that by their elasticity under ordinary circumstances, they keep the claw laid back upon the upper asprim of the foot, so that the soft cushion beneath the toes is the only part brought into contact with the ground. But when the animal springs upon its prey, the tendons of the flexor muscles of the toes implanted into the opposite surface of the phalanx, overcoming the elasticity of the retractile ligaments, pluck forward the curved diaws, and burying them deeply into the flesh of its victim, the strongest animals struggle vainly to shake off a gripe so tenacious.



An inspection of the tongue of a carnivorous quadruped at once shows that that member possesses little delicacy of perception. It is only in man, and those herbivorous animals that prepare their food in the mouth by a prolonged mastication, that the sense in question is thoroughly developed. Seeing that the carnivora tear to pieces and swallow their food in large morsels, it can scarcely be supposed that they pay much attention to its sapid qualities.

In the cat tribe, all the middle portion of the surface of the tongue is covered over with sharp recurved and horny spines, adapted,



PORTION OF SURFACE OF TONGUE, AND SMALL PORTION OF SAME MASNIFISD.

as it were, to file off remnants of soft flesh from the bones of their victims. The strength of these spines in the tiger tribe is very .emarkable, and, as will be found recorded in its proper place, instances have repeatedly occurred where a tiger has been wounded by a bullet, and discovered, a few hours afterwards, with several inches round the wound licked as bare as the back of one's hand.

There can be no doubt, however, that besides aiding in the pacification of their ravenous appetites, the saw-like tongue of the tiger and his brethren is useful in cleansing and dressing their beautiful skins.

The teeth of the lion, as of all the carnivora, the quadrumana, and also of man, are composed of bone and enamel—the entire crown, or projecting portion, being covered with the latter. From marked differences in their form in different regions of the mouth, such teeth are conveniently divisible into four groups, called, respectively, *incisores, laniares*, or canine teeth; *pseudo-molars*, or false grinders; and *molars*, or grinding-teeth.



SECTION OF TOOTH.

"The ivory that forms the bulk of the tooth" (b), says Rymer Jones, "is formed by the surface of an internal pulp (a), and as it slowly accumulates, encroaching upon the central cavity, and penctrating more deeply into the socket, the fang is gradually formed, and the central pulp shrinks until, in the fully formed tooth, it becomes reduced to a thin membrane, richly supplied with vessels and nerves, which lines the small central cavity that remains. Before the progressively advancing tooth issues from the nidus wherein it is produced, the enamel is deposited upon the surface of the ivory by the lining membrane of the capsule (c), and becomes arranged in crystalline fibres placed perpendicularly to the surface of the ivory, until the whole crown of the tooth is adequately coated with this important additional substance. Meanwhile, the growth of the tooth still proceeds by the lengthening of its root, until at last the crown issues from the jaw, and the enamel-secreting membrane (c) becomes obliterated." The felinæ have fewer teeth than the other carnivora, having no tuberculous or flat grinders; of cheek teeth, they have only three or four on each side, strong pointed and with shear-like edges, solely useful for dividing flesh.

' In the cats that hunt in the gloom, and consequently require every ray of light that can be made available, the pupil is a long vertical fissure; but this only obtains among the smaller genera, for in those felinge carnivora that surpass the ocelot in size, such as the lion, tiger, and leopard, the pupil again assumes a round form. Furnished with a nictitating membrane, the eyes of this genus shine in the twilight with a brilliant greenish or orange hue.

Among the ancients there was a pretty general belief that the lion, being furnished with a convenient spike at the extremity of its tail, availed himself of the same to lash his sides, and so get up a violent passion whenever it suited him. This delusion is of course scouted in these wise times, but, like many other superstitions, it is not without a certain foundation. Actually, lions and leopards have been found with this thorny tail; Blumenbach, M. Deshays, Mr. Woods, and others, bring testimony no less substantial than the prickle itself to prove its existence. The one exhibited by Mr. Woods, was corneous, like an ordinary nail, solid throughout its greater part, and sharp at the apex. The spine in question, however,



SPINE IN LION'S TAIL

was so slightly attached to the skin, that it came off in the hands of the beastkeeper who was examining it; and, bearing in mind this fact, too much stress should not be laid on the circumstance urged

in disproof of the prickle doctrine, that among the tails of all the stuffed specimens in the Society's Museum, the spine was found but in one instance. The same remark applies equally to the living carnivora confined in menageries. It may be fairly assumed that never did lion have such cause for angry tail-lashing as when he first found himself pent in a narrow dungcon; and it is hard to imagine anything more inimical to the safety of the slightly attached prickle than constant collision with iron bars.

Respecting the voice of the lion, opinion, or perhaps it would be more correct to say taste, differs. A noise that may shake to their very foundation your delicately strung nerves, may only afford to mine, more blunt in quality, an unpleasant tingling. Maybe you are a person of powerful imagination, who, catching a little sound, inflate it bladderwise with the breath of fancy, till it assumes mounfamous proportions; on the other hand, I may be—just as uncon sciously—of mulish mind, and, hearing the roar of artillery, turn and inquire, "Who whispered?" "To talk of the roar of the lion as majestic," writes Dr. Living stone, who for many months trod the very same paths as the animal in question, "is mere twaddle. Heard in combination with the tremendously loud thunder of Southern Africa, on a night so pitchy dark that every flash of the intensely vivid lightning leaves you with the impression of stone blindness, while the rain pours down so fast that your fire goes out, leaving you without the protection of even a tree, or the chance of your gun going off, it is well calculated to inspire fear; but when you are in a comfortable house or waggon, the case is very different, and you hear the voice of the lion without either awe or alarm. The silly ostrich makes a noise as loud, yet he was never feared by man. In general, the lion's voice seems to come deeper from the chest than that of the ostrich, but to this day I can distinguish between them with certainty only by knowing that the ostrich roars by day and the lion by night."

On the contrary, Mr. Cumming, who traversed the very regions where Livingstone formed the above opinions, and had, as his book attests, scores of opportunities of hearing the voice of the lion under every possible circumstance, remarks over and over again on "the lion's appalling and murderous roar," "the lion's majestic voice," "the thunder of the king of brutes," &c. &c. "When the lion speaketh," says a grave and ancient authority, "his breath maketh the big trees to quake, and the smaller animals infesting his domain to gape with fear." Jules Gerard, a wonderful hunter, and one who has studied the habits of the lion as coolly and minutely as ever a dog-fancier studied a peculiar breed of spaniels, tells us of "the noise that resembles the distant roar of artillery;" "never has your car been struck with a more harmonious and magnificent sound. Young and old crouch at it, and listen with solemn respect to the voice before which all others are silent; that voice which tells of the strength and courage of the strongest and most courageous animal on the face of the earth."



SKULL OF LION.



HABITAT OF THE LION.

I, FOR one, am by no means obliged to those modern Nimrods who have suddenly discovered that the lion—the king of beasts —the bold and generous monarch of the forest—the grateful brute that spared Androcles—the type and emblem of British pluck and

magnunimity—is, after all, the merest cur. According to these worthies the royal arms of England is an antiquated delusion, and the true British nursery jingle, concerning the lion and the unicorn, with the sad fate of the latter, and the triumph and feasting of the former, one of the silliest errors ever propagated. The lion beat the unicorn ! Pshaw ! With one poke of his horn the unicorn could bring the big-maned braggart to his knees roaring for mercy !

I can't believe it—I won't believe it. Where is the evidence to prove it i You consult Mr. Cumming, and he tells you of the scores of lions he has made to bite the dust as easily as pigs are stuck in a Wiltshire farm-vard. But suppose instead of the maker highly-finished, certain, death-dealing rifle, these wholesale lion slaughterers had been armed with the old and uncertain flintmounted blunderbuss. They then would have had a very different story to tell—but an insignificant per centage, indeed, being left to tell anything. Is the noble beast to be defamed because some clever Jacobs, or Baker, or Westley Richards invents improvements in guns? It seems to me that there the secret lies. What *can* withstand the constant growth of man's ingenuity? He throws bridges over rivers wide and deep, but the tide runs just as fiercely; he harnesses steam to his chariot and outstrips the wind, but a mile is still a mile; he points his deadly rifle at the king of the forest and lays him low, but that he *is* king of the forest, and as such acknowledged by every living beast, I maintain.

As to this writer and that, busying their pens to prove that the lion is not a "generous" brute, and that he will attack a lone man in the wilderness, is, to say the least, absurd. Of course he will attack a lone man, why shouldn't he ? He is a beast of prey, and manflesh is as toothsome for him—no more nor less, possibly—as the flesh of the boar and buffalo. What does he know about generosity ? It is monitor is his belly. It appeals to him, reminds him of his hooked fangs and sharp claws, and he acts on the hint the first time he spies fair game. He is not a whit less "generous" than man himself. Whenever did poetic reflection on the "antlered monarch of the glen" spoil a man's appetite for venison ? Who amongst us is found wasting sentiment over the "fleecy lamb" in the season of green peas ? Now, hear his virtues.

Whatever may be said against the lion, no hunter ever yet reported him, wherever he has been found, anything but "a faithful husband and affectionate parent." So good an account cannot be given of his wife, who, as a rule, is cruel, mean, and vicious. When she arrives at the age of three years, and her parents will no longer support her, she goes abroad to seek a mate. She, however, is fastidious, and seldom or ever accepts the first young fellow that makes up to her. She can afford to pick and choose—young he lions being much more plentiful than shes, in consequence of the latter having immense difficulty in cutting their teeth, and, in **T** least one case in every four, dying from that cause in their infancy. So she picks her way daintily along till two or three young fellows, sighing like furnace, join her train, quarrelling jealously amongst themselves, and snapping and biting at each other, but ever humble and courtly in their behaviour towards her. If her beaus are well matched for size and strength, this game is kept up for a day or two, until there comes along a right royal bachelor lion with full-grown glistening teeth and a handsome mane. Heedless of the presence of her youthful suitors he pays court to her; and instead of pleading "engagement," as one might think she would, the treacherous vixen lends an attentive ear to his brief pleadings, and reclines on the ground while he settles the question with his rivals. This takes but very few minutes. While he rushes amongst them giving one a claw and another a grip, she lies pleasantly watching the sport, expressing her approval by purring and wagging her tail till they are all sent limping off; then she rises and gaily trots off with the victor.

From that moment he is her slave. She walks first, he follows till she grows hungry, then he goes first—goes alone in fact—to find her some supper, she reclining comfortably along the leaf-strewn ground meanwhile. When he finds some supper, he brings it to her, or, if too heavy, he stands by the side of the game and roars till she comes; touching not a mouthful until she has filled her belly and given him leave to begin. In fact he is "her's till death" —or he would be if she would allow him; but she won't. She cleaves to her lord just so long as a better looking lion keeps out of sight, but not a moment beyond. Jules Gerard relates an anecdote illustrative of the conjugal fidelity of the lioness.

An Arab, one moonlight night, climbed into a tree with his gun for the purpose of shooting a stag. About midnight he saw a lioness approaching, followed by a full-grown lion. The lioness left the path in the midst of the jungle, and laid down at the foot of the tree in which the Arab was perched. The lion, however, kept the path and appeared to be listening to something. Presently the man in the tree caught the faintest possible sound of a roar, and the lioness under the tree at once responded. The husband of the audacious beast, scowling terribly at her, threw up his head and gave forth a roar so full of wrath and defiance, that the terrified man in the tree dropped his gun, and was obliged to cling to the branches to save himself from falling. By degrees the distant roaring became louder, as did the tones of the lioness, while the lion, glaring furiously and whipping his hollow sides with his tail, hurried to and fro from the path to the tree, and seemed to employ himself equally in reasoning with his fickle mate on the impropriety of her behaviour, and in giving bold replies to the challenges of his approaching foe.

After a while, a splendid black-maned lion made his appearance at the extremity of the jungle, and the lioness at once rose to go towards him; but her husband, divining her intention, leapt before, and presently stood face to face with his dark-haired rival. They crouched to spring at the same instant, and, leaping, met and embraced in the air. Then they rolled over to the earth and began a long and



terrible struggle; and while bones were cracking between the mighty jaws of the fighters—while too busy to waste time in roaring they clawed and gripped and vented their pain and fury in muffled sobs and moans—the lioness lay placidly on the grass blinking mer eyes and pleasurably wagging her tail. By degrees the struggling of the brutes became less and less fierce; and presently one lay still entirely and the other had so little life left that his roar of victory was a mere whisper. So the lioness finding that the sport was over, walked leisurely to the prostrate bodies, sniffed one-then the other, and then trotted off without the least concern.

The lion is of nocturnal habits, and there can be little doubt that the prevalent opinion respecting his friendliness to man takes root in that fact. He never turns out from his lair from sunrise to sunset except when he is disturbed by thirst or some equally weighty reason; and then he slouches along in a somnolent condition; and is no more aware of surrounding objects than is a man who wakes in the middle of the night, parched with thirst, and sleepily gropes for his water-glass. The drowsy lion, like the drowsy man, pacifies his thirst and then returns to his slumbers. "When a lion is met in the day-time," says Dr. Livingstone, "if preconceived notions do not lead you to expect something very noble or majestic, you will see merely an animal, somewhat larger than the biggest dog you ever saw, and partaking very strongly of the canine features; the face is not much like the usual drawings of a lion, the nose being prolonged like the dog's. When encountered in the day-time, the lion stands a second or two, then turns slowly round and walks as slowly away for a dozen paces, looking over his shoulder, then begins to trot, and when he thinks himself out of sight, bounds off like a greyhound."

The same authority asserts that the moon is as fatal to lions hunting as the sun; and that so general was the sense of security experienced on a moonlight night throughout his company, that the oxen were seldom tied up, but allowed to lie loosely by the waggons; whereas if this negligence were permitted on a dark night, the certain penalty would be the abstraction of an ox or a horse.

Lions and lionesses generally couple about January, and from one to three cubs are born at a litter; if three, two males and one female; if two, one of each sex. For several days after her young come into the world, the lioness never leaves them for an instant; but as soon as they can trot by her side she takes them for a bit of a walk, and treats them to a nice piece of sheep or goat's fiesh, carefully shredded so as not to hurt their tender gums; indeed, the inhabitants of regions where lions abound know to their sorrow when the lion has children born to him, by the sudden have made amongst the most tender of their flocks.

At the age of three or four months they go with their mother to meet father hon returning from his hunting excursions; and in another month or so they accompany both parents on their business errands, and get initiated into the mysteries of the chase. They even attempt now and then to pluck their own suppor from the Arab's flock; if they fail there is no harm done, for father hon is close at hand and ready to mend any bungling his sons may be guilty of



A LION IN HIS OLD AGE.

When the young lion reaches the rge of two years, he is able to strangle and pull down a horse, or an ox; and so he continues to grow and increase in strength till he reaches his eighth year, and his talons, and teeth, and mane are perfect, and he grows no more His powers are long enduring. For twenty years after he arrives at maturity, his fangs and sinews show no signs of deciy; but after that, he gradually becomes feeble, his teeth fail him, and he becomes "cubbish." He is no longer a match for the tremendous buffelo—he overmatched even by the peaceful ov, so he prowls round the cattle kralls, and snatches a lamb or a kid, just as he did when he set out with his parents, nearly thirty years before. A woman or a child abroad at night shares the same fate. His strength and sight now decline more and more, till the mighty lion grows lean and mangy and crawls about from place to place, eating any offal he can pick up, and despising not even so small an animal as the field mouse; so he starves and dies, or is fallen on and slaughtered by a few cowardly hyænas; or, discovered unable to move beneath a tree, is knocked on the head by some wandering hunter.

Lions are never seen in herds; five or six occasionally hint together, but they are nearly always of one family—a mixed company of black and tawny lions is never seen. When a lion attacks his prey he usually aims at the throat, immediately below the jaw, or at the flank near the hind leg. The flank, however, is the most common point of attack, and on that part he commences to feast. He does net maul or mangle his food; he will rip open and disembowel an ox, as neatly as a Newgate Market butcher, and either eat up the entrails at once (he is especially fond of this portion of the ox) or else remove them to a short distance and save them for a dainty snack to-morrow; while for the present, he pacifies his hungry belly with the solid flesh, crushing ponderous bones as a walnut is crushed between the laps of iron nut-crackers, and laying bare a row of ribs with as much ease as you or I could strip a mackerel.



SP OR (FOULWARKS) OF THE LION

THE FIGHTING LION OF ANCIENT ROME.

IN ancient Rome, when a magistrate or other important or rich man died, it was the custom of his next of kin to anoint his grave with the blood of a certain number of slaves or captives, to appease any hankering for carnage that might still belong to the spirit of the deceased. For many years this was done privately, but on the death of a Roman ruler that occurred nearly three hundred years before the Christian era, his two sons introduced, as a public spectacle, a host of half-naked and armed men, hemmed within a guarded space, and forced to hack, and slash, and cut each other's throats, until the slaughtered, immersed in crimson pools, strewed the ground, and the arms of the slaughterers were listless from sheer exhaustion. So much was the spectacle enjoyed by the barbarians who came to see, that gladiatorial shows became henceforth a national institution.

The gladiator market was at first fed but from two sources malefactors and unruly slaves condemned to death, and prisoners of war. Schools were established for breeding these human fighters, who were bought for a small sum of the authorities by the schoolmasters. The *Lanista* or teacher took care that his pupils were fed on strong food, and kept clean, and wrought to the highest pitch of physical perfection of which they were capable. When a great man died, his son went to the *Lanista* and bought as many fighters as he could afford,—the wretches bargained for having no more voice in the matter than have a cageful of rats that, for a consideration, pass from the hands of the industrious rat-catcher to the brutal owner of a "ratting pit."

Sometimes these horrid shows took place on the ground where the leccased was burnt, but generally in an amphitheatre. The ruins of one of the largest—the Colosseum—exists at the present day. It was begun by Vespasian, and finished by Titus. It was of an oval form, and capable of holding ninety thousand people. The effluvia arising from so vast a mob was found to be so unpleasant to the royal and courtly noses present, that tanks containing perfumed water were here and there fixed, and, during the heat of the day, the liquid was squirted on and among the rabble, scenting them decently. While the bloodshed was progressing, bets were made concerning the fortunes
of the struggling wretches with as much freedom as is exercised in these days at Epsom or Newmarket in the matter of a horse-race.

There were several sorts of fighting men: the *Retiarit* were dressed in short tunics, and went bare-headed; in one hand these worthics bore a sort of three-headed, trident-shaped spear, and in the other hand a little net slung to a thong: the net was to be cast over the head of an enemy and pulled tight about his throat, while he was spitted with the dreadful three-pronged fork. Some fought with hooked swords; some with two swords; some with a sword and a kind



THE COLOSELL M

of single-looped lasso; some, more curious than all, were armed with a spear, seated on horseback, and bound, on penalty of death, to keep the eyes fast closed during the combat. It was common for the fighters firstly to engage with wooden weapons, that they might the better judge the tactics of their adversary: at a signal, these playthings were flung aside, the proper tools caught up, and the butchery begun in earnest. The stage on which the fighting took place was strewn with sand, to soak up the blood; and when one got so badly wounded that his life was quite in the hands of his adversary, he had the privilege of begging his life of the audience. This he did by pointing at his wounds, lowering the point of his weapon, and bowing his head humbly. But even his forlorn attitude, and the urgent petitions uttered by the many gaping crimson mouths disfigurifig his naked body were sometimes insufficient to move the sympathies of the bloodthirsty sight-seers. Some, no doubt, would willingly enough have responded favourably to the fainting man's petition, if it had not unfortunately happened that they had taken odds that he never left the arena alive; others, whose brutal eyes had been regaled by the sight of a few crimson driblets, hankered gluttonously



for more: these, desiring that the man should be slain, held out their hands with the thumbs turned *downward;* others more merciful, and with a lesser appetite for human blood, and already satisfied, turned *up* their thumbs. Numbers carried the day if the case were left to the people, but if the emperor chose to put *his* royal thumbs in motion there was an end to the voting. If the man's life was spared, 'he was rewarded with money, or a crown decorated with ribands; or,

if he had acquitted himself very bravely, a wooden sword was presented to him, in token that he was exempt from the arena for ever after; if, however, the down-turning of thumbs was universal, the poor petitioner was slain as he stood, and two grim attendants, entering the ring, fixed a hook in the carcase and dragged it away.

Anciently, women were not allowed to be present at these sickening spectacles without the explicit permission of those in authority over them; the Emperor Augustus, however, removed this restriction, and made a portion of his immense amphitheatre free to ladies. It is a melancholy fact, and one agreed on by all historians, that there were no such cruel thumbs as those owned by the female portion of the auditory. However eloquent the appeal, in nine cases out of ten, the fair thumbs were inexorable, and, pointing downward, condemned the spent gladiator to death.

The most attractive of all the Roman amphitheatrical shows were those in which wild beasts were pitted to fight each other, or, better still, where a drove of men, scantily furnished with arms, and a drove of gaunt and thirsty lions and tigers were together turned into the highting space. The men who engaged in these conflicts were called Bestiarii, and were chiefly selected from prisoners sentenced to death, or from the lower order of slaves. Athletic freemen, however, would sometimes enter the arena for hire, and slaves, who, barely plucking their lives from the lion's jaws, were granted their freedom, would continue their old pursuits at so much per battle, till, one day, some lithe tiger laying them low, they had the satisfaction of dying affluent men. After the triumph of Trajan over the Dacians, spectacles of this character were exhibited for a hundred and twentythree days. Claudius was emperor at the time, and by his command eleven thousand wild animals, and ten thousand gladiators took part The beasts were kept in strong pens, called in the "sports." vivaria, attached to the amphitheatre. During the five days' revel that took place at the inauguration of the second consulship of Pompey, five hundred lions were introduced into the arena, and every one slaughtered. Part of this number fell by the weapons of the Bestiarii, and part by the teeth and talons of their brethren. ,^Tt would be interesting to know how many human lives were involved in the destruction of this tremendous host of great-maned monsters, each endowed with the strength of six men, and possessed of courage in proportion! Pliny, who has left the above record, furnishes no particulars on this head.

Five hundred lions in five days! A hundred gaunt fiery-eyed lions, so recently from their African forest haunts, that the sight of man is just as offensive to them as when peering over the edge of the pitfall, the eye of trapper and trapped first met;—a hundred of these monsters, loose and raging, among a company of ill-armed men through the length of a summer's day! The reader must excuse me dwelling on the subject for a moment, for really it is so stupendous a matter that I am glad to loiter the better to realize it. A hundred, however, is too many;—it means nothing but a heaving heap of great gaping mouths, red as coral and hot as flame, and all set with great white glistening teeth, and of big, death-dealing arms, each tipped with a row of crooked claws; the hot breath of the furious beasts making a cloud through which they can be but dimly seen, the thunder of their voices swallowing all other sound for a mile round.

Let us take a battle of five lions and five Bestiarii. The arena is about twice the circumference of the pit of an ordinary theatre, and thickly strewn with sand, or sawdust, to keep the combatants from slipping, and for other obvious purposes. A tall wall surrounds the circus, and on the edge of the wall, and projecting partly over it, is a canopied platform, called the *Podium*. Here sat the important personages of the realm—the emperor, the ambassadors of foreign nations, and the proprietor for the time of the exhibition, known as the *Editor*. Shelving down from a great height, to the rim of this wall, and round the entire circuit of it, was a wall of eager human faces, anxious for the "sport" to begin.

Presently it does begin. The five doomed Bestiarii enter the great sand-strewn ring, each armed with a short straight sword. Tall, graceful, athletic-looking fellows, with muscles like woven wire, and in the prime of manhood, and yet withal as nigh to death as life can be. This is a time of intense excitement with the spectators, and while the five forlorn ones, with the resolution of despair, take their proper positions, a hundred thousand eyes are busily taking inventory of their shape, and build, and regulating their bets accordingly. In the thickness of the great wall are iron gates and the creaking of these is a signal that hushes the buzzing and whispering as effectually as the ringing of the little bell at theatres before the curtain rises. Simultaneously with the creaking of the iron gates is heard a low deep moaning, as much more terrible than loud roaring, as the hoarse whispered blurting of a man mad with rage is more terrible than his loudest expostulations. The lions are mad with rage. They have been but a little time in custody : the forest furze is even yet tangled in their bold manes, and their lips yet red with the blood of freehunted game. As they emerge from the various passages and enter the arena, they stand with tall necks, and wide open nostrils, and flashing eyes, not as poor prisoners surrounded by ten thousand enemies, but rather like five mighty kings who, having left their customary haunt—the amphitheatre—for a while, suddenly return to find it invested by a multitude of inferior animals.

The five Bestiarii, however, are the only ones of the multitude within reach of the five outraged monarchs; and amused at such easy prey, they throw back their proud heads and roar scornfully. at the same time most significantly furrowing the ground with their impatient talons. They, however, won't begin the fray. Each marking his antagonist, advances boldly to within thirty paces of him, and then crouches down with his strong loins upreared and his head close to the ground watchfully waiting. But the eye of each Bestiarius is as vigilant as that of his savage foe, his bearing is just as courageous, and the muscles of the man's limbs twitch and throb, as do the lion's. Presently, with a feint to the left and to the right, and then with a swift straightforward bound, the swordsman commences the attack and the spell is broken. What pen can picture the Bedlam scene that at once ensues? The hideous cries of the wounded beast, the appalling shricks of the mangled Bestiarii; the cleaving of flesh with sharp steel, the crunching of bone by jagged teeth; the spontaneous rising, and yelling, and hand-clapping, and cap-waving of the multitude; the vociferous cheering on of men to slaughter the lions, and of the lions to slaughter the men-just as the betting went! A few minutes, however, settles the important event; the struggle in the circus is at an end, bets are paid over, the dead and dying are hauled out of the circus, and fresh sand strewn to cover the blood patches and make all snug and comfortable for the acting of the next scene.

It is generally believed, at the present day, that death by the teeth and claws of "wild beasts is by no means of so painful a

character as might be supposed. It seems that the mere act of seizure by any of the cat tribe is sufficient so to benumb the faculties as to put one at once past all sensation of pain or even horror. As will be found recorded at length, presently, Doctor Livingstone was once as fairly in the jaws of a lion as ever was mouse in those of a fierce grimalkin. By a miracle the missionary escaped, but as he emphatically asserts, while in the brute's power, the penil of his position never once troubled him.



MARTYRDON OF AT IGNATICS.

That this fact, however, was unknown to the Romans is certain from the fact that to give culprits of the worst order to wild beasts was the most terrible punishment they could devise. More than all, with sword, and fire, and crosses, and ponds full of voracious fish at their disposal, death by wild beasts was the most favourite mode of showing their intense hatred towards the primitive Christians; and it could hardly have been love of "sport" that actuated them to adopt this mode of punishment, for the victims, whose crime was forsaking heathenism, were not allowed to fight for their lives, but merely cast headlong to the famished brutes, who received them as an ordinary meal, and so disposed of them.

Ignatius, Bishop of Antioch, was one of the most remarkable of these Christian martyrs who came to death by the lion's jaws. Accused of entertaining Christian belief, he was carried before the Emperor Trajan and by him questioned. After a long conference, Trajan asked of the bishop the direct question, "Dost thou, then, carry Him who was crucified within thee ?" "I do," replied Ignatius, "for it is written, 'I dwell in them and walk in them.'" Then Trajan pronounced this sentence against him: "Since Ignatius confesses that he carries within himself Him that was crucified, we command that he be carried, bound, by soldiers to great Rome, there to be thrown to the wild beasts for the entertainment of the people."

Ignatius was nowise averse to the sentence—indeed, he gloried in it; and when certain Roman Christians, who were high in power, offered to intercede for him with a view to obtaining his pardon, he implored them not to interfere but to allow the emperor's will to be executed, at the same time expressing a fervent desire that the lions might consume him utterly and so make a worldly end of him. "When he was led to execution he was attended by a number of the brethren, and was allowed to join in prayer with them. And he prayed to the Son of God in behalf of the churches, that he would put a stop to the persecution and continue the love of the brethren towards each other. He was then led into the amphitheatre and speedily thrown to the wild beasts. He had here also his wish. The beasts were his grave. A few bones only were left, which the deacons gathered, carefully preserved, and afterwards buried at Antioch."





HOW THE LION IS HUNTED.

THE hunting tactics of Europeans abroad are vastly different from those pursued by the natives themselves. It would, however. be unfair to claim for the former superiority on this account alone With the semi-naked savage, cunning and stratagem are natural defensive weapons, and on them he mainly depends for immunit^{*} from the teeth and claws of his four-footed carnivorous neighbours. With men of civilized birth, it is vory different. Science provides them with blades sharp as tiger's claws, and cruel as lion's fangs, and with projectiles more certain of dealing death to a vital part at a single bound, than the lithest cat that ever roared and leapt. Still, as the lion, despite his fangs and talons, would be despicable without courage, and his great muscles, fit only to be applied to the shafts of a sand cart, so would the dagger, and pistol and rifle, be mere wooden toys, unless the hands that grasped them were steadied by a serenely beating heart, unless the eye that glanced down the barrel of the gun for a particular finger's-breath in a lion's raging countenance, performed the operation as coolly as though it were taking observations of the moon through the big telescope at Greenwich.

Pluck against pluck—cucumber coolness and nerves of steel, against fangs and claws;—these are the terms on which the European hunter meets his big-maned enemy, Lion, lord of brutes. The number of lion-hunting adventures that might be strung together, would certainly fill a volume quite as large as this; and in making a selection with a view of securing the best, and most authentic, some consideration is necessary. Suppose we begin with a story showing what a perilous business lion-hunting is, and how terribly the odds are against the inexperienced hunter.

Mr. Andersson is the hero. At the time he and his party were halting near the Richterfeldt mission station, on the banks of the Swakoss river. The narrator had just sat down to his dinner, when several horror-stricken natives came bursting into his tent, with the alarming announcement, that a short distance off, a lion had just pounced on and carried away a goat, and begged Andersson to come and destroy the beast. "They had so often cried 'wolf' that I did not give much heed to their statements; but as they persisted in their story, I at last determined to ascertain the truth. Having strapped to my waist a shooting-belt containing the several requisites of a hunter—such as bullets, caps, knife, &c., I shouldered my trusty double-barrelled gun (after loading it with steel-pointed balls), and followed the men. In a short time we reached the spot where the lion was believed to have taken refuge. This was a dense tamarisk brake of some considerable extent.

"On the rising ground above the brake in question, were drawn up in battle array, a number of Damaras and Namaquas, some armed with assagais, and a few with guns. Others of the party were in the brake itself, endeavouring to oust the lion. But as it seemed to me that the beaters were timid, and, moreover, somewhat slow in their movements, I called them back; and accompanied only by one or two persons, as also r few worthless dogs, entered the brake myself. It was a rather dangerous proceeding, for in places the cover was so thick and tangled, as to oblige me to creep on my hands and knees; and the lion in consequence, might easily have pounced upon me without a moment's warning. At that time, however, I had not obtained my experimental knowledge of the old saying 'a burnt child dreads the fire'—and therefore felt little or no apprehension.

"Thus I had proceeded for some time, when suddenly and within a few paces of where I stood, I heard a low angry growl, which caused the dogs with hair erect, in the manner of hog's bristles, and with their tails between their legs, to slink behind my heels. Immediately afterwards a tremendous shout of "Ongeama! Ongeama!" (the lion! the lion!) was raised by the natives, on the bank above, followed by a discharge of fire-arms. Presently, however, all was still again; for the lion, as I subsequently learned, after showing himself on the outskirts of the brake had retreated into it.

"Once more I attempted to dislodge the beast; but finding the enemy awaiting him in the more open country, he was very loth to leave his strong-hold. Again, however, I succeeded in driving him to the edge of the brake, where, as in the first instance, he was received with a volley; but a broomstick would be equally efficacious as a gun in the hands of these people; for out of a great number of shots that were fired, not one seemed to have taken effect. Worn out at length by my exertions, disgusted beyond measure at the way in which the natives bungled the affair, I left the tamarisk brake, and rejoining them on the bank above, offered to change places with them; but my proposal, as I expected, was forthwith declined.

"As the day, however, was now fast drawing to a close, I determined to make one other effort to destroy the lion, and should that prove unsuccessful, to give up the chase. Accordingly, accompanied only by a single native, I again entered the brake in question, which I examined for some time without seeing anything; but on arriving at that part of the cover we had first searched, and when in a spot comparatively free from bushes, up suddenly sprung the beast within a few paces of me. It was a black-maned lion, and one of the largest I ever remember to have encountered in Africa. But his movements were so rapid, so silent and smooth withal, that it was not until he had partially entered the thick cover (at which time he might have been about thirty paces distant) that I could fire. On receiving the ball, with a terrific roar he wheeled round and bounded towards me. When within a few paces he crouched as if about to spring, having his head embedded, so to say, between his fore-paws.

"Drawing a large hunting-knife and slipping it over the wrist of my right hand, I dropped on one knee, and thus prepared, awaited his onset. It was an awful moment of suspense, and my situation was critical in the extreme. Still my presence of mind never for a moment forsook me—indeed, I felt that nothing but the most perfect coolness and absolute self-command would be of any avail.

"I would now have become the assailant; but as-owing to the intervening bushes, and the clouds of dust raised by the lion lashing his tail against the ground-I was unable to see his head, while to aim at any other part would have been madness, I refrained from Whilst intently watching his every motion, he suddenly firing. bounded towards me; but, whether it was owing to his not perceiving me, partially concealed as I was in the long grass, or to my instinctively throwing my body on one side, or to his miscalculating his distance, in making his last spring he went clear over me, and alighted on the ground three or four paces beyond. Instantly, and without rising, I wheeled round on my knee and discharged my second barrel; and, as his broadside was then towards me, lodged a ball in his shoulder, which it completely smashed. On receiving my second fire, he made another and more determined rush at me; but, owing to his disabled state, I happily avoided him. It was, however, only by a hair's breadth, for he passed me within an arm's length. He afterwards scrambled into the thick cover beyond, where as night was approaching, I did not think it prudent to pursue him."

The following morning the "spoor" of the wounded lion was taken up; they found a patch of sand on which he had stood drenched with blood, and bushes broken and beat down by his staggering fainting weight; at this spot, however, further trace was lost, and it was not till several days afterwards that the mutilated carcase was discovered hidden in the dense bushes.

The above example is not the only instance of acquaintance with the lion experienced by Mr. Andersson. On a previous occasion, while peacably driving along with the ox-team and waggons, in the cool of the morning, a noise like a thunder-clap was suddenly heard, and almost before the horrified travellers could exchange a word as to the cause, there emerged from a bush, and boldly faced the cavalcade, a great lion and his equally formidable mate. Instantly the foremost oxen backed on the shafters, and the shafters wheeled about, back ing the heavy waggons amongst the trees, bellowing all the time like mad, while the frighted natives shrieked as only frighted natives can, and waggon-hoops, and pannels, and spokes were smashing, and over all came the roar of the two lions, as though rejoicing at the fun. Andersson seized his gun, and was for shooting the audacious brutes, but his experienced man, Hans, forbade it: "if you should fail to shoot them dead on the spot they will be down on us in an instant," said he.

Just before the row began, it happened that an ox had broken bounds, and a fleet runner was sent to recapture him; the man was returning, when the lion, who with the lioness had not yet shifted the ground first taken by them, spied him, and at once bounded off in chase. Quick as thought Andersson was off to the rescue; and then ensued the curious sight of the Hottentot fleeing like the wind with his late prisoner the cow, both pursued by the lion, and the lion pursued by Mr. Andersson. It was evident, however, that it was beef, and not man, the lion desired for breakfast; for when the ox by a cross-cut managed to join the rest of the herd, the lion gave up the chase, and trotted off; and when Mr. Andersson returned to the waggons, he found that the lioness had gone after her lord.

In Algeria, where abound three varieties of the lion—the black, the grey, and the tawny—the depredations committed by the gaunt brute are enormous. A reliable authority asserts, that a full-grown lion that establishes his lair in the vicinity of the herdsmen's tents, destroys cattle of the annual value of two hundred and forty pounds sterling. It is not wonderful, then, that the destruction of one of these maurauders should be celebrated by a jubilee.

The Arabs seldom attempt the destruction of the lion, but by means of the pitfall. In the summer-time the cattle-owners have little to fear,—the lion can find food nearer his own home than theirs : but winter sets in and he is starved with cold and hunger, then he descends from the mountains to the plains, and the Arabs have to be vigilant. The tents are pitched in a circle, and surrounded by a hedge three yards high. Between the inner side of this hedge and the tents, a trench is dug thirty feet deep and fifteen broad : round the margin of this gulf a smaller hedge is planted, so that the cattle may not fall in, and the trap is complete. When the hungry lion comes that way he scents the cattle, and they scenting him, set up a loud braying and bellowing, causing the strong thief outside to lash his tail and smack his lips in anticipation

of the coming banquet. He paces round the hedge which, though nine feet high, is a thing to be scorned by such a leaper as he is, and finally he steps back a few paces, and with a roar he is over, stunned and stupified at the bottom of the chasm. There he lies, and the people of the tents, --men, women, and children, tumble from their beds and, frantic

with joy, hurry to the edge of the pit to shower bullets and stones and durt on their enemy, till he is dead.

Jules Gerard, who spent six hundred nights hunting the lion in Algeria, lays down the law, as to how the solitary hunter may pursue his noole game.

"Start on your expedi-



PITFALL OF THE ARALS

tion at sunset: go and sit down on a rock which commands the lair and remain there. When you hear his roar, and he appears to be approaching towards you, walk to meet him. If he be hungry he will come along at a rapid pace, if not he will be walking deliberately, and wagging his enormous head from side to side, but as soon as he sees you he will stop. Then he will set up a great roar intended to frighten you, and the roar will be followed by the most frightful moans. Probably he will turn from the path to sharpen his claws against a tree trunk; if so, look out.

"He will not attack you till after your first shot, and upon the accuracy of your aim hangs your life. When you aim at him he crouches down like a cat, exposing only the upper part of his head to you. Don't fire yet. Without taking your gun from your shoulder or your finger from the trigger, move a few steps to the left or right, according to which side happens to be best lighted by the moon. If you take too many steps he will know your game, and shift round bodily, so as still to keep the top of his head foremost, but if you take merely three or four short steps, he will only move his head, and thereby give you a chance of aiming at his temple. Lose not a moment ; aim between the eye and the ear, and press the trigger. One of two things now takes place ; either the lion is killed, or before you can ascertain the effect of your shot-you are down on your back beneath the lion who covers you with his body, and holds you tightly in his powerful claws. Then, unless you have lost your dagger in the fall, use it swiftly, or you are a dead man."

It would seem, however, that this "solitary system" of hunting is not to the taste of Arabs generally. The authority just quoted assures us that when a lion, either by his voice, or the destruction he causes amongst the cattle, makes known his arrival in a certain locality, fifty or sixty men, each armed with a gun, a pistol, and a yataghan, assemble at a given time, and set about the business with as much seriousness and deliberation, as a body of Englishmen or Frenchmen would manifest at the storming of a fortress.

A fire is lighted at the foot of a mountain, and round it sit the bulk of the company, smoking, stroking their beards and debating; while ten or a dozen knowing fellows are sent to reconnoitre the terrible animal, and report on its age, sex, and the exact situation of its lair; when this is accomplished, the business begins in earnest. Having flashed and loaded their guns, five or six Arabs, chosen from among the strongest of the party, are sent up to the crests of the mountains, in order to follow every manceuvre of the lion from the first attack till his death, and to correspond with their companions by certain well-known signs, which are simple enough if you understand them, but decidedly enigmatical to persons not in possession of the key. When these men have reached their appointed posts of observation the general company stir to the battle.

As the lion's sense of hearing is very delicate, it sometimes happens that he hears the steps of the hunters. In such a case, he rises and walks in the direction of the sound. One of the watchmen perceiving this, takes the skirt of his burnous in his right hand and hoists it before him; which means "I see him." One of the attacking party then stands forward and silently opens a correspondence with the man on the height. The former takes off his burnous and shakes it from right to left, which signifies, "Where is he? and what is he doing ?" If the lion is still, the man replies by raising his skirts to his head and letting them fall; then he walks a few steps forward repeating the same signal. By this the interrogator understands that the hon is "motionless in front of you, and at some distance." If, however, the terrible beast is on his legs and advancing towards or retreating from the party, the watchman takes a few steps in the same direction ; but should the lion be making full at the hunters, the look-out no longer relies on fluttering his petticoats to convey the horrid news; he cries as loud as he can Aou likoum.

Acu likoum is Arabic for "take care," and woe to the unlucky hunter who is not able to Acu likoum in time. Should the advancing brute catch sight of him, death must follow in one shape or another. The man's fate hangs on the trigger of his gun—his life is involved in the neat little cartridge that plugs the barrel of it. Bang! The smoke rises like a curtain, and either there is being enacted the bloody tragedy of a helpless man in the clutches of a raging lion, or there lies the grim beast with his life leaking out at the jagged hole in his breast. Beware, however, how you approach him, as the nearer he is to death, the more terrible is his desire for blood. "If," says Gerard, "when mortally wounded he can get hold of a man, he inflicts on him all the horrible tortures to which a cat subjects a mouse. One of the most courageous of the band generally some relative of the unfortunate prisoner—approaches the lion singly to fire straight into his brain, for to fire from a distance would be only to endanger the life of the man. The other hunters remain^about twenty yards behind: if the lion's strength be nearly exhausted he crushes the head of his victim just as the barrel of the gun is being pointed at his ear. Then he closes his eyes and awaits his death. But if the animal be still capable of action, he hastens to kill the hunter who is in his power, in order to bound upon the rash man who is approaching."

The renowned tourist through the "Hunting Grounds of the Old World," relates the particulars of a "duel" he had with a lion at Natal. In company of a few Dutch friends he set out to hunt Springbucks, but presently came upon the "spoor" of two fullgrown lions and a pair of half-grown cubs. For some time the search for the noble game was futile; but presently a flock of vultures were seen circling over a particular spot, and on riding thither the company were gratified with the sight of the four lions feasting on the carcases of two deer. "I looked to my gun-nipples to see the powder was well up, and rode towards them; but my horse did not at all like the sport, and became so extremely violent and restive that I had to dismount, and prepare to open the campaign on my own hook-trusting to a steady hand and good weapons to see me safe through. On my retreat, on account of the restiveness of my horse, the lion had advanced nearly two hundred yards from the spot where the dead Springbucks lay, leaving the lioness and cubs still feeding; and he was now coolly surveying our party, stretched out at full length on the grass, yawning listlessly, about four hundred yards distant.

"On perceiving me advancing towards him he made a long low moaning noise like thunder rumbling among distant hills, by which he thought perhaps to intimidate me; but finding it had not the desired effect he got up and sat on his haunches like a dog, making curious whining noises, and turning his head every now and again to look at his mate and cubs, who understanding from his growling, which was becoming more and more savage, that something was up, withdrew to some low sand-hills a short distance away, which I was rather thankful for. When I got to about two hundred and fifty yards distant, I stopped to unsling my second gun from my shoulder, so as to be ready: on which my friend sprung to his feet

and made three or four huge bounds towards me, lashing his tail from side to side, showing his teeth, and giving a tremendous roar which seemed to shake the earth, and caused the horse I had been riding to break from the Hottentot who was holding it and scour over the plain. On seeing me advance he again stopped, and crouching low on his belly, growled in a most savage manner. I felt that 'the die was cast;' and there was no retreating. It was a regular duel between man and beast, and was beginning to be rather serious work, for we were barely sixty yards asunder. The lion still lay with his head crouched between his paws; although every now and then he appeared to rise and tear up the earth with his hind claws. His eyeballs glistened with rage, his mane stood erect, his tail lashed his flanks; and I felt he was watching my every movement, and that further delay was dangerous. I therefore quietly cocked my second gun, laid it by my side on the ground, and then gave a loud shout, at the same time flinging my pith hunting-cap towards him. This had the desired effect; he sprung upon his feet, and at this moment, looked grand beyond conception. Now was the moment; I threw up my rifle, took deliberate aim at his broad and massive breast, and let fly. I heard the soft 'thud' of the ball as it entered his chest, saw him spring high into the air, and fall upon his back. I rushed up to give him a coup de grace, but it was not needed; a convulsive tremor passed over his sturdy limbs, the under-jaw dropped, and my first lion was dead."

Conspicuous among the most successful of European lion hunters stands Mr. Gordon Cumming. The following will serve as a fair sample of the thousand and one marvellous exploits related by that gentleman.

Having killed a buffalo at night, on the opposite bank of a river to where his camp was, he next morning despatched four of his fellows to fetch in the carcase. They, however, returned bringing news to their master that the dead buffalo had been partly consumed by a lion, and that the grim brute was still lurking in the neighbourhood. Consequently, Mr. Cumming set out with a troop of dogs and men to give chase to the lion. "As we drew near the spot," says he, "I observed the lion sitting on the top of the bank, exactly where he had last been seen by my people. When he saw us coming, he overhauled us for a moment, and then slunk down the bank for concealment; being well to leeward of him, I ordered the dogs to be slipped, and galloped forward.

"On finding that he was attacked, the lion made a most determined bolt of it, followed by all the dogs at a racing pace; but when they came up to him, he would not bay, but continued his course down the bank of the river, keeping close in beside the reeds, and growling terribly at the dogs, which kept up an angry barking. The bank of the river was intersected by deep watercourses, and the ground being extremely slippery from the rain which had fallon during the night, I was unable to overtake him until he came to bay in a patch of lofty dense reeds which grew on the river bank. Ι had brought out eleven of my dogs, and before I could come up, three of them were killed. On reaching the spot, I found it impossible to obtain the smallest glimpse of the lion, although the ground favoured me. I having the upper bank to stand on; so dismounting from my horse, I tried to make out from his horrid growling his exact position, and fired several shots on chance, but none of these hit him. I then commenced pelting him with lumps of earth and sticks, there being no stones at hand. This had the effect of making him shift his position, but he still kept in the densest part of the reeds, where I could do nothing with him.

"Presently my followers came up, and, as a matter of course established themselves in safety in the tops of the thorn-trees. After about ten minutes' bullying, the lion seemed to consider his quarters were growing too hot for him, and suddenly made a rush to escape from his persecutors, continuing his course down along the edge of the river. The dogs, however, again gave him chase, and soon brought him to bay in another patch of reeds just as bad as the first. Out of this, in a few minutes, I managed to start him, when he bolted up the river, and lay close in a narrow strip of reeds; presently, however, he made a charge amongst the dogs, and for the first time I was enabled to give him a shot, the ball entering his body just behind the shoulder. On receiving it, he charged, growling after the dogs, but not farther than the edge of the reeds, out of which he was extremely reluctant to move. I gave him a second shot, firing for his head; my ball entered at the edge of his eye, and passed through the back of his mouth.

"The lion then sprang up, and facing about, dashed through the

reeds, and plunged into the river, dyeing the water with his blood; one of my dogs following him. Attracted by the blood, a huge crocodile suddenly made his appearance, and followed in their wake, but fortunately did not take my dog as I expected he would. One of my men fired at the lion as he swam, but missed him; but before the bold swimmer could gain the opposite bank—just indeed as he planted his fore-feet on the shore—I planted a shot in his neck, and turned him over dead on the spot."

The same sportsman likewise relates how that he and his menincluding two named Hendrick and Stofolus-were one night outlying in the depths of the forest. Cumming was asleep in his waggon, and the two men reclining as a sort of outpost by the side of a fire some distance off. During the forepart of the night, one of the team-oxen broke from its fastening, and Hendrick hearing it wandering about, got up from the fire-side, and drove back the ox, made it fast, and then returned to the fire, and laid down by the side of his companion. A little while after, the entire camp was roused by a murderous roar, followed by a great cry of "the tion! the lion!" and then Stofolus came rushing into the tent with

> the awful news that a lion had pounced on Hendrick, and dragged



THE FATE OF HENDRICK.

him off, despite the efforts of John Stofolus, who had frantically seized & great flaming branch from the fire, and beat it about the head of the savage beast. He was not to be baulked of his prey He had watched the unfortunate wretch rise to drive the ox in, and then lie down again, under the same blanket as Stofolus, and resolved to make a meal of him. While Stofolus ran to tell the news, the lion trotted off with the dead man to the cover of some dense bushes. Nothing of course could be done that night, so the hunter gathered his Hottentot followers together, and with them kept watch till morning; then, accompanied by two after-riders, he set out to avenge the terrible death of his waggon driver.

In the hollow where the lion had lain consuming his prey, they discovered one of the poor fellow's legs, bitten off below the knee, and fragments of his pea-coat scattered here and there. Following the spoor, they came to a dry water-course, up which the footprints of the lion were clearly visible. Along the sides of the watercourse were heaped up leaves and reeds, just as they had been stranded at the last flood. The dogs were loosed, and presently began to spring about and bark angrily; then came a crash, and bursting through the leaves and reeds, the terrible man-eater broks away and ran.

"The lion held up the river bank for a short distance, and took away through some wait-a-bit thorn cover, the best he could find, but nevertheless open. Here in two minutes the dogs were up with him, and he turned and stood at bay. As I approached, he stood, his horrid head right to me, with open jaws, growling fiercely, his tail waving from side to side. On beholding him, my blood boiled with rage; I dashed my steed forward within thirty yards of him and shouted, 'your time is up, old fellow!'

"I halted my horse, and placing my rifle to my shoulder, waited for a broadside. This the next moment he exposed; when I sent a bullet through his shoulder, and dropped him on the spot. He rose, however, again, when I finished him with a second bullet in the breast."

Doctor Livingstone met, as nearly as possible, a fate similar to that above recorded of Cumming's Hottentot waggon driver, and in the same region—Southern Africa. The villagers of Mabotoa, amongst whom he was staying, were much troubled by lions, which leapt into their cattle-pens, and destroyed their cows. To such an extent did the lions carry their depredations, that the natives announced their belief that they were bewitched :--- "given into the power of the lions by a neighbouring tribe;" and sought Dr. Livingstone's advice on the subject.

The Doctor well knowing that if one in a troop of lions is killed, the others frequently take the hint, and leave that part of the country, gave the villagers advice to that end; and in order- to encourage them, offered to lead the hunt. The lions were found on a hill covered with trees, and about a quarter of a mile in length. The men circled the hill, and gradually edged in closer and closer, so that the game might be completely surrounded. Presently, the native who accompanied Livingstone spied a licn sitting on a piece of rock, and fired at him, the ball missing the beast, and striking the rock on which the animal was sitting. The lion turned, bit like a dog at the spot where the bullet had struck, and then bounded off to the shelter of the brushwood.

Presently Livingstone spied another lion in much the same situation as the former, and being not more than thirty yards distant from it, let fly both barrels. The villagers, frantic with joy, were for rushing in on their enemy at once, but the Doctor, who through the bushes could see his game still on its legs, with its eyes glaring, and its tail bolt upright, checked their impetuosity, and requested them to wait till he again loaded his gun; but, while in the act of ramming home his bullets, the natives set up a sudden and frightful cry, and raising his head, there was the wounded lion fairly springing at him.

The Doctor was standing on a slight eminence, and in his great leap the maddened beast caught the missionary by the shoulder, and lion and man rolled to the ground together. And now comes a curious fact,—the better worth noting, because from its dangerous nature, the experiment is rather unlikely to be tried by even the most enthusiastic zoologist. "Growling horribly in my ear," says Dr. Livingstone, "he shook me as a terrier does a rat. The shock produced a stupor, similar to that which seems to be felt by a mouse after the first shake of the cat. It caused a sort of dreaminess, in which there was 'no sense of pain or feeling of terror, though quite conscious of all that was happening. It was like what patients partially under the influence of chloroform describe, who see all the operations, but feel not the knife. This singular condition, was not the result of any mental process. The shake annihilated fear, and allowed no sense of horror in looking round at the beast."

The great fore-paw of the lion was pressing heavily on the back of Mr. Livingstone's head, and he almost insensibly turned to relieve himself of the pressure, and at the very instant, the animal leapt from his prostrate victim, to attack one of the natives who had offered to shoot at him, but his piece missed fire. This man he bit in the thigh, and left him to spring at the neck of a second native, who, armed with a spear, had rushed to the rescue. The exertion, however, was too much for the mortally-wounded beast, and so, with his claws bedded in the spearman's shoulder, he rolled over and died.

The teeth of the lion leave a terrible wound, resembling the wound of a gun shot, keeping open a long time and discharging continuously. Even when the part heals it is not well, acbing afresh as the weather changes. The man whose shoulder was bitten, showed Mr. Livingstone the old wound all gaping anew, *in the same month of the following year*. As to the Doctor himself, he escaped with a shoulder so shattered, as to need an artificial joint, and with eleven teethwounds in his arm; as however, he wore at the time of the encounter, a stout tartan jacket, the teeth were, in their passage, so far cleansed of virus that the wounds healed and troubled him no more.

Being on the subject of lucky escapes from lions, two other instances occur to me in which "the sweet little cherub that sits up aloft," so piously believed in by the mariner, demonstrated its existence, in one case, in shape of an unwieldy elephant, and in the other by the interposition of a hand invisible, but more potent than the united strength of ten thousand elephants. Captain Mundy in his *Pen and Pencil Sketches* relates the first story. The "lion" of the party was an Asiatic beast, and the hunt was conducted from howdahs on elephant back. One gentleman having fired at, and wounded the enraged brute, it charged fearlessly at the elephant that carried the aggressor, and he, to end the lion's sufferings, and completo his triumph, leaned over the front of the howdah and took steady aim. Just, however, as he was about to touch the trigger, the whole front of the howdah gave way with a crash, and the bold gunner plumped

102 ELEPHANT BENDING A TREE ACROSS A LIONS BACK.

fairly into the jaws of the maned monster, who at once seized him.

The unlucky man's companions thought his fate inevitable, and were afraid to fire lest their bullets might miss their mark, and strike him instead of the lion. Just at the critical moment however, the horror-stricken mahout, scarcely knowing what he said, gave the elephant whose howdah had been broken, orders to advance on the hon. The sagacious beast at once obeyed, and grasping in his trunk



A FRIEND IN NELD

the top of a young tree that stood at hand, bent it down across the loins of the lion, and thus forced the tortured animal to quit his hold on his victim. The latter, although his life was saved, was terribly mauled, his breast and shoulders clawed by the beast's talons, and his arm broken in two places. As to the mighty game, the bullet wound and the crushing had rendered it nearly powerless, and it was easily disposed of.

The second marvellous escape is related by a staid old hunter employed by Mr. Andersson. The old fellow in question had so long ived among lions, as to be pretty well acquainted with their ways : indeed he and his two foster sons killed upwards of twenty within three or four months, which may account for his cool behaviour on this occasion. He had been "down" with fever a long while, and, getting strong again, set out one day for a bit of a ride on ox-back. Suddenly a huge lion rushed at him, and the ox becoming frightened threw its rider, whose foot caught in the stirrups, but luckily dragged off his shoe so that he was released. Piet had a pistol and a swordknife stuck in his belt, but in his fright forgot both, and having scrambled to his feet, did nothing but commence shouting for help. Nearer and nearer the lion approached, till he came within arm's length and planted one of his paws on Piet's jacket, which was lying on the ground. With the desperation of despair, the hunter hauled at the jacket with one fist, and literally punched the lion's head with the other. Astounded by this mode of assault, the lion abstained from attacking him, till one of his men hearing his voice came running up with a gun, when the grim brute retired a short distance, and on the piece being fired at him, took to his heels and fled.

Within the last century, however, the leonine inhabitants of Asia and Africa have decreased in numbers much more than is generally supposed. Devoted soldiers of the chase, regarding but as insignificant obstacles the many leagues of ocean and desert that part them from the noblest of all game, have bearded the lion in his stronghold and beaten him. The thousands of big-maned forest rulers of last century have dwindled at the present writing to hundreds, and ere another century is past, the hundreds may be reduced to tens, and in course of time, the tens to units—to solitary old lions, grey and companionless, and seldom seen as the sca-serpent. Absurd as this may seem, it becomes something like reason, when the lion-haunted regions of Africa of the present day are contrasted with what they were fifty years ago. It is considerably less than fifty years since Steedman traversed Southern Africa, and in his "Wanderings" published the following :—

"At a place called 'Ongorutcie Fountain,' there is a large tree containing seventeen conical huts. These are used as dormitories, being beyond the reach of the lions, which, since the incursion of the Martatees, when so many thousands of persons were massacred, have become very numerous in the neighbourhood, and destructive to human life. The branches of these trees are supported by forked sticks or poles, and there are three tiers or platforms on which the huts are constructed. The lowest is nine feet from the ground, and holds ten huts; the second, about eight feet high, has three huts; and the upper story, if it may be so called, contains four. The ascent to these is made by notches cut in the supporting poles, and the huts are built with twigs, thatched with straw, and will contain two persons conveniently. On a former excursion, Messrs. Schoon and McLuckie visited several deserted villages built in a similar manner, between the Moriqua and Lentlecan Rivers, as well as in other places. These, however, were erected on stakes instead of trees, about eight feet above the ground, and about forty feet square, larger in some places, and containing about seventy or eighty huts. The inhabitants -sit under the shade of these platforms during the day, and retire at unght to the huts above."



HUTS SUILT BINOND THE REACH OF LIONS

THE MANELESS LION.

WHEN first this animal was introduced to the notice of naturalists, it was supposed not to be a distinct species, but merely a young male whose mane had not yet attained complete development. Captain Smee, however, has clearly demonstrated that the lion in question is at all events a permanent variety, inhabiting Guzerat, Hindostan, and extending through a range of country forty miles in extent.

The name the creature bears would imply that it is entirely destitute



of a mane; but this is not exactly true it is only comparatively maneless. The sides of the neck and shoulders are furnished with long hairs, and the under surface bears a scanty hirsute fringe. The limbs of the maneless lion are shorter than that of those of his African cousin, and the tuft at the end of his tail more bushy than any of his tribe. Olivier saw five maneless lions in the menagerie of the Pasha of Bagdad, where they had been nearly five years, coming originally from the environs of Bassora.



NAMELESS LION OF GUZERAT

JULES GERARD.

ALL that is known of the earlier years of this hero of many lion-battles, is furnished by the performer himself in a short introductory chapter to his "*Tweur dcs Lions*," and, either through excessive modesty, or, that the chief incidents even of his youth were of too insignificant a nature to burthen his memory, the particulars there recorded are of the most meagre and undecided character.

In the form of a riddle, he lets the world into the secret that while very young his father died, and that at the same time his family was reduced to a state of destitution. The plucky Jules, however, hurries to inform us, that of the latter circumstance he has reason to be glad, inasmuch as it "set him on his own hook," as the vulgar English say, compelling him to join the army. He was, to use his own words, born a soldier. "When I was only ten years old I used to hunt with an old arquebus the sparrows who came to ravage the fruit in my father's garden, and the cats who made war on the sparrows. I collected all the children of the neighbourhood, and summoned them to the enjoyment of mimic fights." He likewise relates, how that, while still quite a stripling, he interfered in a row at a fair, between a man and his wife, and well thrashed the former for assaulting the latter.

The brave Gerard however is mistaken in esteeming these circumstances as foreshadowings of his future greatness. Many a youth has exhibited greater courage, and achieved more tremendous successes, and ended his life cross-legged on the tailor's board, or lathering chins in a barber's shop. It was not till-still a beardless young fellow-he joined the Spahis in 1842, and proceeded with his regiment to Africa, that his lamp began really to shine. In Africa he learnt the soldier's trade, and worked at it as diligently as his masters allowed, but withcut the occurrence of an opportunity for displaying the valour that was consuming .im. So passed two years, and then the youthful corporal, finding how sparsely grew laurels on the red field of war, resolved to snatch fame from the jaws of the much dreaded lions that were ravaging the country, and literally eating up the substance-the flocks and herds-of the poor Arab inhabitants. How he acquitted himself of his task Europe is aware; and if the gratitude of hundreds, and the applause of tens of thousands, may be taken as evidence of a man's greatness, then is Jules Gerard a great man, and entitled to at least an outer niche in the temple of fame.





THE PUMA.

THIS agile and bloodthirsty animal possesses almost as many aliases as the most celebrated London pickpocket. To some he is known as the American lion, to others as the cougar (a contraction of his Mexican name *Gouazouara*), while the American hunter acknowledges him by neither of the three appellations mentioned, but persists that he is a panther, or as he terms it, a *painter*.

The puma is found throughout America. When full grown it measures four feet and a few inches from the nose to the commencement of its tail, while the latter appendage is frequently from two to two and a half feet in length. This, however, is the male puma; the female is of less dimensions by nearly a quarter. Its limbs are thick and muscular, but on account of the comparative smallness of its head, one is apt to underrate its strength. While the puma is young, its coat is of various shades of colour; its back is reddish-brown, fading to fawn-colour about the flanks, and becoming just a pinkisn white under the belly. The muzzle, chin, throat, and insides of the legs are light grey, and the breast white as snow. This, with a jetblack jowl and lips, and white whiskers, gives the animal a singular and by no means unhandsome appearance. When, however, it attains full growth this frippery of attire is shed, and the animal assumes a business-suit of plain, brownish grey, which on account of its uniformity, gives to the puma its classic appellation, *Felis concolor*. The colour of the animal is admirably adapted to its pursuits. It lives much on trees, lying along the great limbs that jut from the parent bole, ready in the twinkling of an eye to leap on the neck of the deer that may be passing unsuspiciously beneath, or to pounce on the peaceable capybara or peccary grubbing at the underwood. While so lying among the leaves, the puma's dusky fur so exactly resembles the bark in colour, that the most astute "painter" hunter is sometimes betrayed into dangerous proximity with the savage beast.

The scene of the puma's hunting exploits is not, however, invariably confined to forest regions; it has no objection to the plain, as the sheep-farming squatter frequently finds to his cost. It would not be so bad if the troublesome brute were content to seize and carry off for supper a lamb or sheep and be satisfied, at least till the morrow; but unfortunately the puma craves blood rather than flesh, and evading the weary watch-dogs, will stealthily attack a sheep-fold, darting from one animal to another, and staying with each only long enough to sever one of its chief arteries, and suck it to death. This game it will continue till forty or fifty dead sheep strew the ground, and then the gorged thief steals away to sleep himself hungry again, and then sets off on another vampire expedition.

The stories related of the puma are of a mixed character, some presenting him as a noble beast, possessing all the generosity usually ascribed to his great-maned kinsman of the African forest, and with none of the cruelty occasionally exhibited by the latter animal; while others persist that it is a very demon in a lion's skin, and show horrid seams about their limbs in proof of the assertion. The fairest way therefore will be to take the evidence of both sides, and leave the reader to find a verdict. Step forth, Josh Springett, gray-headed beartrapper, and as bold a hunter as ever roamed the Katskill Mountains, and give evidence for the prosecution.

"I had been out all day—since sun-up in fact—and having had not so much luck as would fill a frying-pan, was considerably in the dumps,—footsore, hungry, just about as miserable as ever I hope to be. Well, just as the day was fadin' and I was ploughin' my way through a smartish bit of wood, I heard a rustlin' overhead, and looking up, there saw layin' all along a big limb, his tail slowly waving from side to side, and his green eyes twinkling like lamps, about as big a painter as I ever clapped eyes on. Hungry as I was, I warnt painter hungry, and though his jacket as I could see was in prime order and worth the strippin', I do think I should have let him run, but for them sarcy green eyes of his. So I stept back a bit, and putting up my piece, covered one of his twinklers, and let fly. How it came about I never could make out, but instead of that touch of the trigger perducing just a bang, a puff of blue smoke, and a dead painter, it perduced nothing but a great flash like lightning, and a roar like thunder, and tumbled me flat to the ground as though I had been clubbed by an Injun.

"It was full a minute before my wits, that were scattered like partridges, came back to me, and I found out what the row was about; and I've often thought since what a lucky job it was that the row scattered the painter's wits as well as mine, or he could have been down and made meat of me as easy as nothing. I was in a pretty pickle: my piece that had stood by me so many years had burst at the breech; and my left hand had lost half a finger and was streaming away pretty. Bosides this, a dreadful smell of singed hair, and a feeling of darnin' needles about my face told of the roastin' up of my whiskers, which, you must know, had been growing since I was a youngster, and I was gettin' to be rather fond of 'em. I do think it was rage at losing them whiskers, that kept the pluck in me, and saved me from growing sick at the sight of my ragged left hand.

"I got on my legs, and looked up into the big tree, and there was the cussed thing that had caused all the mischief, about ten feet higher up than when I first saw him, with his green eyes fixed on mine, as though astonished at my altered appearance. The sight of the beast at once scouted my aches like a cloud of feathers; and I made up my mind to have it out with him. While I settled 'how,' I pulled some herbs, and bound them round my finger stump, with one of the sleeves of my shirt. Then, seeing that the painter's tree was an easy one to climb, I unsheathed my long hunting knife, clapped it between'` my teeth, and prepared to ascend. I knew that as long as I kept my face towards him, the cowardly villain would retreat higher and higher up the tree, and I determined to follow him to the topmost limb where he would want all his legs to hold on, while I gave him one smart poke behind the shoulder blade with my knife, and sent him spinning down like a cockchafer.

"It was by this time grown so dark, that the painter's eyes were certainly the plainest part of him, and guided by them and the rustle he made among the boughs, I tracked him up the tree. He however had a limb more than I had, and consequently made better headway, and presently when I had halted to take a bit of a rest and again looked up, the rustling had ceased, the two green lamps had gone out, and for all the signs of a painter in that tree, the cunning beast might have been a mile away. Still, I knew he must be there and what was more, I knew it was the habit of the creature to lie so flat and close to a bough, that even in broad daylight it was a tough job to tell which was bark, and which painter; and that if my painter was lucky enough to get at me rearward, it might go queer with me. So I kept my weather eye open, and trailed up more cautious than ever.

"It was a great tree-seven feet through if it was an inch. When I got up so high, I could see that the top of the main stem had been struck square off, while the limbs sprung up high around it. That will be a good place to sit on for a rest thinks I, and so I'll get as high as that if I don't get higher. At last I clomb within four feet of the top of the broken trunk, and as the bit thereabout was bare of handy branches, I hitched the fingers and thumb of my lame hand in a sizeable hole in the bark about twenty inches from the top, and with my other hand, dug my knife in the wood for a final haul up. All at once I was aware of a sort of tickling about the rag bound round the hand that was plunged in the hole, and I turned giddy and sick as a horse. I knew what was the matter with the hand, yet as my body was hanging, I could'nt draw it back. The painter's jaws were the other side of the hole, and he had sniffed the bloody rag and was licking it. By a great effort, I wriggled myself a little higher to release the helpless hand; but at the same moment, the hungry painter took it between his fangs, and drew it in as far as the wrist.

"The deadly fright must have given to my body the nimbleness of a spider. I plucked my knife from the trunk, and holding it in my mouth, sprung up from the bough on which my feet rested, and caught the edge of the hollow-for so it turned out-at the top. The weather had worn the summit of the broken trunk like a basin, and in this basin, the painter was crouched. My hand in the hole at the side of the hollow, was as though a blacksmith had it in his vice; but the thick rag round it saved me from feeling the brute's teeth. I clung to the trunk with my knees and chest, and having thus got my right hand at liberty gripped the handle of my long knife, and reaching over the edge of the basin, slashed and stabbed like a madman. The first poke was enough to make him leave his hold on my hand; but he could no more rise from his lair under that downpour of knife-blade than he could sink through the other way. My stars! if ever a poor painter was 'carved,' that was the one! Why, there was'nt enough sound hide about him to make a pair of leggings How I found my way down the tree, is more than I can tell you; I only know that, arrived at the foot of it, I reeled and went down like a log, and there lay till some of the fellows found me. I needn't mention that I haven't been up a tree after a painter since."

Other hunters besides Josh Springett, testify to the puma's disinclination to risk a battle with that terror of the most terrible brutes —man. It is only when hardly pressed by hunger, that it will dare attack him even when his back is presented; and it has been known to hang at the skirts of a travelling party for days, on the lean hope of a dog or a child lagging behind the rest. Sir Francis Head in his Journey across the Pampas, had a circumstance brought under his notice corroborative of the puma's cowardice.

"As a singular proof," says Sir Francis, "of the fear which all wild animals in America have of man, I will venture to relate a circumstance which a man sincerely assured me had happened to him in South America. He was trying to shoot some wild ducks, and in order to approach them unperceived, he put the corner of his poncho (which is a sort of long narrow blanket) over his head, and crawling along the ground upon his hands and knees, the poncho not only covered his body, but trailed along the ground behind him. As he was thus creeping by a large bush of reeds, he heard a loud, sudden noise, between a bark and a roar; he felt something heavy strike his feet, and instantly jumping up, he saw, to his astonishment, a large puma, actually standing on his poncho; and perhaps the animal was equally astonished to find himself in the presence of so athletic a man. The man told me he was unwilling to fire, as his gun was loaded with very small shot; and he therefore remained motionless, the puma standing on his poncho for many seconds. At last the creature turned his head, and walking very slowly away about ten yards he stopped and turned again : the man still maintained his ground, upon which, the puma tacitly acknowledged his supremacy, and walked off."

A marvellous legend concerning a puma is treasured by the good folks of Buenos Ayres—a legend that for romance and pathos quite eclipses the world-famed story of Androcles and the Lion; and I am bound to state that the most thorough investigation has discovered no reason for doubting the authenticity of one legend more than the other.

During the government of Don Diego de Mendoza, in Paraguay, a direful famine swept the land. A murrain fell on the cattle, and the hard-hearted earth, lacking the rain's soft persuasion, refused to yield a single green blade. As the inhabitants sauntered listlessly through the silent streets, their garments hung sluttishly on their lean bodies. and, as they regarded each other with eyes great with hunger, they thought on all they had heard of the way in which famishing men at sea, had ere now assuaged their appetites, and the more they dwelt on it, the more excusable the thing appeared. That was how the strong, gaunt man viewed the matter ; it is probable, however, if the tender youth of the city, and the little men who were constitutionally plump, had been consulted on the subject, they would probably have been of a different way of thinking.

What made the destitution more aggravating was the fact that out in the country, and beyond Don Diego's jurisdiction, there was food in plenty; but the food was in the hands of the Indians, with whom the Spanish governor was at war, and he did not choose that his subjects should reveal the weakness of his camp by appearing before the enemy as lean beggars suing for bread. To this end he forbade the people on pain of death to go into the fields in search of relief, placing soldiers at the outskirts of the city to shoot down all deserters from the pale banner of hunger that hung over Don Diego's dominions. Many made the attempt, and were duly brought down by the bullet, much to the satisfaction of the animated carrion bones-and-feathers that perched disconsolate on the city walls. At last, however a woman,



MALDONATA AND HER PLMA CHAMPIGN.

named Maldonata, cheated soldiers, vultures, and all, and fled into the open country.

How long a time elapsed before her indomitable courage was rewarded with a meal the legend does not record; but when night came, and Maldonata required a lodging, she crept into a cavern, and there crouched down to sleep. By-and-by, however, she was roused by the nost melancholy moanings, and, raising her head, her astonished yes met those of a great female puma pacing up and down before the cavern entrance. The puma presently paused in its uneasy pacing and approached Maldonata with the full intention, as that person aaturally supposed, of eating her up; but, wonderful to relate, instead of falling on her tooth and nail it merely applied its tongue, and licked Maldonata's hand as a lap-dog might, hers being the lap it was familiar with. The fact, however, was, the poor puma was about to become a mother; and when the cubs were born, and the animal out of its trouble, it still maintained the friendly spirit it had at first evinced, and signified, as plainly as a dumb beast could, its desire that Maldonata should continue to make herself at home—cheerfully taking upon itself the whole responsibility of providing food for the entire family.

This state of things continued till the cubs grew up and went about their business, as did their parent, leaving Maldonata to shift for herself. But, venturing abroad, she speedily fell into the hands of the soldiers, who brought her back to Buenos Ayres, and took her before Don Francis Ruez de Galen, who then commanded in Mendoza's stead. "Take her," said De Galen, who was a man of coarse and bloody mind, "take her into the forest and bind her to a tree; as to her death, let starvation and the wild beasts settle it amongst them." So poor Maldonata was taken, and tied and left in the forest.

Curious to know the fate of the woman, however, the same company of soldiers, two days afterwards, visited the spot, when, instead of finding as they confidently expected, the empty waist chain dangling from the tree, and the victim's tattered and talon-torn rags strewing the ground, there she was, alive, with a great female puma keeping sentry before her, and guarding her from a host of other pumas and jaguars that chafed and mouthed on every side. As soon as the guardian puma saw the soldiers, she with the rest of the savage beasts, retired; and then, having been released from her bonds, Maldonata related the story of the puma in the cavern, and how that it and the one that had protected her through two long days and nights were identical. Hearing this, the soldiers ventured to represent the case to De Galen, who, ashamed to avow himself more heartless than a puma, pardoned Maldonata, and sent he home to her family.





HANNO APPROACHING THE ISLAND OF WILD 3 EN

THE GORILLA.

For nearly two hundred years naturalists have been vaguely cognizant of the existence of a peculiar species of ape, of a physiognomy milder and more human-like than the ordinary race of monkeys. One of these, "a small ape, tailless, without cheek-pouches, and without the ischial callosities, clothed with black hair, and with a facial angle of about sixty degrees," was brought from the western coast of Africa and anatomised by Tyson. This interesting little monkey was christened *Homo Sylvestris*, or Pigmy; and in a book published by Tyson in 1699, entitled "The Anatomie of a Pigmie compared with that of a Monkey, an Ape, and a Man," the main features of the newly-discovered animal's organization are discussed.

This, however, is by no means the earliest record we have of the existence of man-like apes. More than two thousand years ago, Hanno, a Carthaginian, was sent out by his Government to circumnavigate the African continent. In the Periplus, a sort of log of his marvellous voyage kept by the ancient sea captain, we read, at starting,
"It was decreed by the Carthaginians that Hanno should undertake a voyage beyond the pillars of Hercules and found Lybo-Phœnician cities. He accordingly sailed with sixty ships of fifty oars each, and a body of men and women to the number of thirty thousand, with provisions and other necessaries. . . . On the third day, passing the streams of fire, we came to a bay called the Horn of the South. In the recess there was an island like the first, having a lake, and in this there was another island full of wild men. But much the greater part of them were women with hairy bodies, whom the interpreters called 'gorillas.' But pursuing them, we were not able to take the men; they all escaped, being able to climb the precipices, and defended themselves with pieces of rock. But three females, who bit and scratched those who led them, were not willing to follow. However, having killed them, we flayed them and conveyed them to Carthage; for we did not sail any further, as provisions began to fail."

Professor Owen expresses it as highly probable that the creature recently met on the western coast of Africa is identical with that seen by Hanno and his crew. Du Chaillu, however, whose opportunities of observation should make him the most reliable authority on all matters connected with the gorilla, differs in this respect from Owen. Du Chaillu says : "The huge gorilla consumes so great an amount of vegetable food that no considerable number could have found sustenance on such an island as Hanno mentions. Moreover, unless its habits have undergone a very great change, it is not likely that the males would have retreated and left their females in the lurch. In my experience the male invariably advances toward the foe and secures the safe retreat of its female, and on such occasions acts with ferocious courage. Again, to capture even a female gorilla by hand and by simple force is, I think, impossible. No one who has seen the animal in its native forests, and watched the exhibition of its enormous strength, would believe the account. It seems probable, therefore, that Hanno met only the Troglodytes niger, or chimpanzee, which is common in the mountains and forests of Senegambia, and which does not attack man."

From six hundred years before the Christian Era to the year 1590, Hanno's "wild-men" were met with but in the pages of Pliny, and the wild-man's country remained unvisited—at least, by any one capable of leaving a lasting record of his visit. In the above mentioned year, however, Andrew Battel sojourning for a while in west tropical Africa, made the acquaintance of the hideous gorilla, and furnished to the civilized world some further particulars concerning ' Battel's account of the animal is preserved in Purchas's "Pilgrimages, or, Relations of the World," published in 1748. He mentions two different apes, the pongo and the engeco.

"The greater of these two monsters is called pongo in their language, and the lesser is called engeco. The pongo is in all proportions like a man, for he is very tall, and hath a man's face, hollow-eyed, with long haires upon his brows. His body is full of haire, but not very thicke, and it is of a dunnish colour. He differeth not from man but in his legges, for they have no calfe. He goeth alwaics upon his legs, and carrieth his hands clasped on the nape of his necke when he goeth upon the ground. They sleepe in trees, and build shelter from the raine. They feed upon the fruit that they find in the woods, and upon ants; for they eate no kind of flesh. They cannot speake, and have no understanding more than a beast. The people of the countrie when they travaile in the woods make fires where they sleepe in the night; and in the morning when they are gone, the pongos will come and scat about the fire till it goeth out; for they have no understanding to lay the wood together. They goe many together, and kill many negroe that travaile in the woods. Many times they fall upon elephants which come to fccd where they be, and so beat them with their clubbed fists and pieces of wood that they will runne roaring away from them. The pongos are never taken alive, because they are so strong, ten men cannot hold one of them: but they take many of their young ones with poisoned arrows. The young pongo hangeth on his mother's belly with his hands fast clasped about her, so that, when the country people kill any of the females, they take the young, which hangs fast upon the mother. When they die among themselves, they cover the dead with great heapes of boughs and wood, which is commonly found in the forests."

Despite the absurd and fantastic garniture with which Battel's ignorance and superstition, or powerful imagination, enveloped his wondrous story, still, that it was substantially correct, modern discovery has put beyond question. Not until very lately, however; for although after Battel came Nieremberg and Bosman, and as lately as 1819, Bowditch ("Narrative of a Mission from Cape Coast Castle to Ashantee")



STRUCTURE OF THE GORILLA.

LET the sensitive reader for a moment contemplate the frightful animal pictured in these pages, and then endeavour to imagine it his progenitor. Let him take cognizance of its bestial head, its eyes gleaming savagely from the pits in which they are sunk, its neckless trunk, its big-tusked jaws, its tremendous hairy limbs, its hand-like feet, and curved spine, and then fancy the terrible beast an ancestor !

Monstrous and absurd as the notion is, it is one that has no lack of entertainers. Men even of the most profound scientific knowledge have thought the subject sufficiently grave for their discussion; and, though non-affinity between human and gorilla-nature has been clearly established, there are doubtless weak heads among us who are not yet reassured. To my humble thinking, the way in which science has handled the matter, the formidable array of argument that it has been thought necessary to advance in confutation of the idea of a transformation of the ape to man, is enough to make the strongest minds amongst us rather uneasy. It is, therefore, comforting to find the great Owen, after devoting scores of pages to the gorilla question, winding up as follows: "Nine-tenths therefore of the differences, especially those very striking ones manifested by the pelvis and pelvic extremities, as distinguishing the gorilla and chimpanzee from the human species, must stand in contravention of the hypothesis of transmutation and progressive development, until the supporters of that hypothesis are enabled to adduce the facts and cases which demonstrate the conditions of the modifications of such cases."

The equally astute Du Chaillu is just as anxious to pacify our alarms. "There are two points of great difference I must remark on," says he, "which still farther establish in my opinion the vast chasm which lies between even the lowest forms of the human race and the highest of the apes. One of these is, that in the apes the vertebral column has a single curvature in the form of a bow, and is thus enabled to act like an elastic spring, which preserves the animal from sudden shocks while running or leaping on all-fourn. Moreover, the mode of articulation of the head with the spinal column obliges man to maintain himself erect, while in the ape it is such that the head must be thrown backwards when in an erect position, in order to maintain the balance of the body; and I have frequently observed the fact that the gorilla is not able to preserve himself for any considerable length of time in an erect posture."

The reader will be good enough to acquit me of error, in thus giving him the verdict of two eminent anatomists, before I have laid before him the evidence on which that verdict is based. The departure from the ordinary rule is intentional,—perpetrated with a kindly meaning indeed, and with a view of fortifying and comforting the adventurer before he commences an exploration of the curiosities of gorilla formation.

Take a living adult gorilla. If he is tall, he stands about five feet nine inches high; if short, not more than five feet one, or two inches. In fact, in height gorillas vary as much as mankind. The colour of his skin is jet black. This, however, is only apparent on the face, the chest, and the palms of the paws, which are without the iron-grey hairy covering th.t envelopes the remainder of the body. The hair on the arms is darker than the rest, and as much as two inches in length; and possesses the peculiarity of growing upwards on the fore-arm, and downwards on the main-arm. The hideous head is covered with reddish-brown and short hair, like an old-fashioned, carroty scratch wig. This red head-dress is invariably worn by the males, but the females do not attain it till they are grown up.

The black hide of the gorilla is as thick as the skin of the ox. Lut not nearly so tough; indeed, under the arms and near the hips it is especially tender. The breast of both male and female is bare. Old females are occasionally found with their backs as well as their breasts denuded of hair, occasioned, it is supposed, by a habit they have of squatting on the ground by night, and resting with their backs to the trunk of a tree. The gorilla's eyes are restless, deeply sunken, and overhung by the bony frontal ridge, which gives to the face a perpetual and ferocious scowl. The mouth is wide, the lips sharply cut, and exhibiting no red at the edges, and the jaws are of tremendous weight and power. When the gorilla is enraged, his thin, black lips shrink, his formidable double row of fangs, even to the most backward ones, are plainly revealed, and look none the less terrible for being cased in a mouth of the intensest red.

The gorilla possesses eyebrows, which, however, are ill-defined, and lost in the hair of the scalp. The eyelashes are also scanty. The ears are marvellously like human ears, but smaller, and the nose more like a man's nose than that of any other ape; it having a projecting nose bone. The chest is of great capacity, and the shoulders, on which the creature's head seems fixed without the intervention of anything like a neck, exceedingly broad. The abdomen is of immense size, very prominent, and rounding at the sides. The arms have prodigious muscular development, and are very long, extending to the knees. From the wrist to the elbow the gorilla's arm is of uniform size. The great length of the arms, and the shortness of the legs, form one of the chief deviations from man. These arms do not appear so long when contrasted with the trunk as with the legs, the latter being short, decreasing in size from below the knee to the ankles, having no calf. When the animal walks erect (a mode of locomotion, be it observed, by no means invariably indulged in), the knees are bent at the joints, and the back has a forward stoop. The gorilla's track when running on all-fours is peculiar, the hind feet leaving no trace of their touch upon the

ground. Only the ball of the foot, and the thumb which answers to our great toe, seems to touch. The fingers of the fors-hand are only lightly marked on the ground.



SPOOR OF THI GORILLS

The hands of the terrible animal, especially in the male, are of immense proportions. The fingers are short and thick, the circumference of the middle finger at the first joint being in some gorillas over six inches. The skin on the back of the fingers, near the middle phalanx, is callous and very thick, which shows that the most usual mode of progression of the animal is on all-fours, and The thumb is shorter than in man, and not resting on the knuckles. half so thick as the fore-finger. The hands are hairy as far as the division of the fingers, those, as in man, being covered with short thin hairs. The nails are black, and shaped like those of man, but smaller in proportion, and projecting very slightly beyond the ends of the They are stout and strong, and always seem much worn. fingers. The hand of the gorilla is almost as wide as it is long, and in this it approaches nearer than any other of the apes to that of man.

The foot of the "wild-man" resembles a giant hand, the transverse wrinkles of the great toe bespeaking its free and frequent use. The middle or third toe is longer than the second or fourth; the fifth proportionately shorter as with us. The toes are divided into three groups, so to speak. The two joints of the great toe measured in one specimen six and a half inches in circumference. As a whole the foot of the gorilla presents a great likeness to the foot of man, and by far more so than that of any other apc. In no other animal is the foot so well adapted for the maintenance of the erect position.

Disagreeably striking as is the shape of the living gorilla as compared with that of man, it becomes infinitely more so when the frames of both are stripped of their fleshy covering, and the bare skeletons placed side by side. "The gorilla skeleton," says Du Chaillu, "the skull excepted, resembles the bony frame of man more than that of any other anthropoid ape. In the form and proportions of the pelvis, the number of ribs, the length of the arm, the width of the hand, and the structure and arches of the feet, all these characteristics appear to me to place the gorilla nearer to man than any other anthropoid ape is placed."

Speaking of the similitude of the gorilla's limbs with those of man, Owen says, "The characteristics of the limbs in man are their near equality of length, but the lower limbs are the longest. The arms in man reach to the middle of the thigh; in the gorilla they nearly attain the knee, in the chimpanzee they reach below the knee, in the orang they reach the ankle, in the siamang they reach the sole; in most gibbons the whole palm can be applied to the ground without the trunk being bent forward beyond its naturally inclined position on the legs. In no quadrumana does the humerus (fore-arm) exceed the ulna (main-arm) so much in length as in man-only in the very highest and most anthropoid class, viz. the gorilla and chimpanzee, does it exceed the ulna at all in length; in all the rest, as in the lower quadrupeds, the fore-arm is longer than the arm. The humerus in the gorilla, though less long compared with the ulna than in man, is longer than in the chimpanzee. . . . The difference in the length of the upper limbs, as compared with the trunk, is but little between man and the gorilla."

From the sole of his foot to the poll of his ugly head, then, it would appear that a resemblance—more or less faint—to the human form may be traced. At that point, however, thank goodness, the likeness ceases. The cranial differences existing between even the very lowest order of man and ape kind are broad and unmistakable. In the most uncivilized races, such as the aboriginals of Van Dieman's Land, the brain is smaller than in the more cultivated order; consequently, in the former case, the cranium rises and expands in a less degree, and a greater projection of the fore part of the face is the fnevitable result. Compared with the gorilla, however, this projection of the jaws sinks into insignificance; indeed, in the latter, the facial angle is 49° , compared with 75° in the Bushman.

The system of dentition, too, is, as regards man, entirely distinct from the highest class of ape. Indeed, as Owen remarks, the equable length of the human teeth, the concomitant absence of any break in the series, and of any sexual difference in the development of different teeth, are to be viewed by the light of actual knowledge as being primitive and unalterable specific peculiarities of man



Teeth are not influenced in their growth by the action of neighbouring muscles; pressure upon their bony sockets may affect their growth after they are protruded, but _.ot the specific proportion and forms of the crowns of teeth of Limited and determinate growth.

Reason holds no throne in the man-ape's shallow skull—he lacks that quality without which man himself would be a gorilla, or something very like it. The difference of size of brain or cranial capacity between the highest ape and the lowest man is vastly in favour of the latter. "In the gorilla," says Dr. Morton, a celebrated American anatomist, "the range is only from twenty-four to thirty-five, including both sexes; but from thirty-five in the ape, the capacity expands at

once to sixty-three in the lowest human cranium." Du Chaillu, speaking on the same subject, says, "The cranial capacity of a young gorilla is from twenty to twenty-two cubic inches; supposing a subsequent development equal in measure to that in man, this would produce an animal of a high grade of intelligence. But this development does not take place: the actual increase in brain in the adult gorilla (or other anthropoid apes) over the young is very slight. The head increases in size and weight with age; but it is the bones that grow into a hard, firm, brain case; the brain itself remains almost without increase in weight or size. This proves conclusively that the animal has very limited powers of intelligence; and, from my own observations, I believe that the limit of that intelligence may be reached in a single year of its life. . . . We see, then, that the brain preserves the material and zoological characters of man; and, though often inferior in appearance to that of the chimpanzee, gorilla, or orang, is nevertheless an undeniable human brain. Disease or degradation in continued reproduction may dwarf a man, but will never make of him an ape."

Let us hope that the notion of a transformation of an ape into man's perfect shape will, from sheer lack of support, fall away and die out. It may, however, be interesting to know that the absurd idea has been familiar to the minds of men for several hundred years past, and that no harm has come of it. Good old Henry More treating of the subject in his "Conjectura Cabbalistica" (1662), speaks to the purpose : "Of a truth, vilc epicurism and sensuality will make the soul of man so degenerate and blind, that he will not only be content to slide into brutish immorality, but please himself in this very opinion that he is a real brute already-an ape, a satyre, or baboon-and that the best of men are no better, saving that civilizing of them, and industrious education, has made them appear in a more refined shape, and long inculcate precepts have been mistaken for connate principles of honesty and natural knowledge, otherwise there be no indispensable grounds of religion and virtue, but that has happened to be taken up by over-ruling customs. Which things, I dare say, are as easily confutable as any conclusion in mathematics is demonstrable. But as many as are thus sottish, let them enjoy their own wildness and ignorance; it is sufficient for a good man that he is conscious unto himself that he is more nobly descended, better bred and born, and more skilfully taught by the purged faculties of his own mind."

IIABITAT OF THE GORILLA.

R'elecche)

THE accounts hitherto prevalent in Europe of the gorilla's ordinary ways of life in the gloomy depths of the African jungle have been

uch as make out the animal a perfect demon—a monster who, armed with a tremendous bludgeon, haunted the skirts of his grim domain, and beat to a jelly women and children who came that way; or else, ensconced in the lower boughs of a great tree, he waited till the doomed traveller came beneath, and then, lowering an hind leg, twitched his great toes round the man's neck, and hoisting him high up, choked him outright, and then with a hideous laugh throw the carcase down. His four-footed neighbours, said the credulous narrators, were not a moment safe from his fiendish malice; and when the peaceful elephant was quietly nibbling at the green buds, the gorilla, clutching his bludgeon, would steal along the branches and fetch the trunk of the unsuspecting feeder such a tremendous blow, as to send it off howling with fright and pain.

At last, however, the maligned beast has a chance of having his case fairly set before the world. Mr. Du Chaillu is his champion. "T am sorry," he says, "to be the dispeller of such agreeable delusions : but the gorilla does not lurk in trees by the roadside, and drag up unsuspicious passers-by in its claws, and choke them to death in its vice like paws; it does not attack the elephant and beat him to death with sticks; it does not carry off women from the native villages; it does not even build itself a house of leaves and twigs in the forest trees. and sit on the roof, as has been confidently reported of it. It is not gregarious even; and the numerous stories of its attacking in great numbers have not a grain of truth in them." After this brief summary of what it does not do, the great African explorer then proceeds minutely to describe what it does-how and where it lives, what it eats, how it sleeps, with every other particular of the man-ape's domestic economy.

First, as to its food. Though it has such immense canines (teeth), and though its vast strength, doubtless, fits it to capture and kill almost every animal that frequents the forest, the gorilla is a strict vegetarian. In the stomachs of all the animals of this genus killed by Chaillu, he found scarcely anything but berries, pine-apple leaves, and other vegetable matter. It is a vast feeder, as its enormous paunch indicates ; and it is doubtless owing to the difficulty of finding sufficient food to support his great frame, and enormous muscular development, that the animal leads the nomadic life he does, scarcely ever being found two consecutive days in the same neighbourhood.

It has been supposed that its habit of eating fruit, and berries, and green leaves, betokened it an inhabitant of trees. Du Chaillu, however, contradicts this. He tells us that he found his giant game almost always on the ground; and that, although they often ascend the trunks to gather berries and nuts, they stay among the branches only long enough to devour what favourite food may be within reach, and then return to the ground. Moreover, the contents of the animal's stomach went to prove that, as a rule, it need not climb at all in search of food, its staple sustenance being wild sugar-cane, certain berries that grow close to the ground, and a sort of walnut with so hard a shell that it requires a strong blow with a heavy hammer to break it. Between the vice-like jaws of the gorilla, however, this iron-cased nut is of no more account than a filbert between the laps of a pair of nutcrackers.

It lives in the densest and darkest portions of the African jungle, preferring deep wooded valleys and also rugged heights. As a rule, carnivorous animals of formidable strength share this jungle stronghold with the "wild man," and if he did not take care of his young ones, he might any hour of the day or night be le^{ct} childless; so, baby gorilla is safely cradled "on the tree top," and father gorilla, squatting down at the trunk, discusses family matters with his "good lady," and evinces not the least fear though half a dozen leopards be lurking within a yard of him.

The gorilla is innocent of the crime of polygamy. In every instance, Du Chaillu found the adult male and female, one of each sex, wandering together, except, indeed, the rare case of some sour old giant of his tribe solitary, and more dangerous to meet than any two of his sociable brethren. The male gorilla, however, under the mildest circumstances, is never averse to a fight with man, especially a black man, the very sight of whom seems to drive the animal halfmad with rage. "In all my hunts and encounters with these animals," says Du Chaillu, "I never knew a grown male run off. When I surprised a pair of gorillas, the male was generally sitting down on a rock, or against a tree in the darkest corner of the jungle, where the brightest sun left its traces only in a dim and gloomy twilight; the female was mostly feeding near by, and it is singular that she almost always gave the alarm by running off with sudden cries and shrieks. Then the male, sitting for a moment with a savage frown on his face, slowly rises to his feet, and looking with glowing and malign eyes at the intruders, begins to beat his breast, and lifting up his round head, utters his frightful roar. This begins with several sharp barks, like an enraged or mad dog, whereupon ensues a long, deeply guttural rolling roar continued for over a minute, and which, doubled and multiplied by the resounding echoes of the forest, fills the hunter's car like the deep rolling thunder of the approaching storm."

The common walk of the gorilla is not on his hind legs, but on allfours. In this posture the arms are so long that the head and breast are raised considerably, and, as it runs, the hind legs are brought far

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beneath the body. The leg and arm on the same side move together, giving to the beast a curious waddle. It can run at great speed. The young one, however, pursued by the hunter, runs off kalf-erect, looking not unlike a negro making off from pursuit. When the female runs from danger, her baby clasps her round the neck, and hangs beneath her breast with its hind legs about her body. Even in its infancy, however, the gorilla gives evidence of its fierce and untamable nature, combined with marvellous strength. The capture of an infant gorilla is thus graphically described by Du Chaillu :—

"On the 4th of May, I had one of the greatest pleasures of my whole life. Some hunters who had been out on my account brought in a young gorilla alive. I cannot describe the emotions with which I saw the struggling little brute dragged into the village; all the hardships I had endured in Africa were rewarded in that moment. It was a little fellow of between two and three years old, two feet six inches in length, and as fierce and stubborn as a grown animal could have been.

"By the hunters' account, they were going, five in number, to a village near the coast, and walking very silently through the forest, when they heard what they immediately recognised as the cry of a young gorilla for its mother. The forest was silent. It was about noon, and they immediately determined to follow the cry. Presently they heard it again. Gun in hand, the brave fellows crept noiselessly towards a clump of wood, where the baby gorilla evidently was. They knew the mother would be near; and there was a likelihood that the male, the most dreaded of all, might be there too. But they determined to risk all, and, if at all possible, to take the young one alive, knowing what a joy it would be for me. Presently they perceived the bush moving, and, crawling a little further on in dead silence, scarce breathing with excitement, they beheld what has seldom been seen, even by the negroes, a young gorilla, seated on the ground, eating some berries that grew close to the earth. A few fect farther on sat the mother, also eating of the same fruit.

"Instantly they made ready to fire; and none too soon, for the old female saw them as they raised their guns, and they had to pull triggers without delay. Happily, they wounded her mortally, and she fell. The young one, hearing the noise of the gun, ran to his mother, and clung to her, hiding his face, and embracing her body. The hunters immediately rushed towards the two, hallooing with joy as they ran on. But this roused the little one, who instantly let go his

mother, and ran to a small tree, which he climbed with agility. where he sat and roared at them savagely. They were now perplexed how to get at him; no one cared to run the chance of being bitten by the savage little beast, and shoot it they would not. At last they cut down the tree, and, as it fell, dexterously threw a cloth over the head of the young monster, and thus gained time to secure it while it was blinded. With all these precautions, one of the men received a severe bite on the hand, and another had a piece taken out of his leg.

"As the little brute, though so diminutive, and the merest baby for age, was astonishingly strong, and by no means good

tempered, they could not lead him. He constantly rushed at them, so they were obliged to get a forked stick in which his neck was inserted in such





where the excitement was intense. As the animal was lifted out of the canoe in which he had come a little way down the river, he roared, and bellowed, and looked round wildly with his wicked little eyes, giving fair warning that if he could only get at some of us, he would take his revenge.

"I saw that the stick hurt his neck, and I immediately set about having a cage made for him. In two hours we built a strong bamboo house, with the slats securely tied at such a distance apart that we could see the gorilla, and it could see out. Here the thing was immediately deposited; and now, for the first time, I had a fair chance to examine my prize. It was a young male gorilla, evidently not yet three years old, fully able to walk alone, and possessed for its age, of most extraordinary strength and muscular development. Its greatest length proved afterwards to be two feet six inches. Its face and hands were very black; eyes not so much sunken as in the adult's. The hair began first at the eyebrows and rose to the crown, where it was a reddish-brown. It came down the sides of the face in lines to the lower jaw-much as our beard. grow. The upper lip was covered with short, coarse hair; the lower lip had longer hair. The eyelids were very slight and thin , eyebrows straight, and three-quarters of an inch long."

Du Chaillu, having caged his prisoner, sought to make friends with it. This, however, the captive seemed to regard as adding insult to injury. It retreated sullenly, roaring, to the furthermost corner of its prison, and, when its amicable gaoler approached to reassure it, darted at his legs, and, despite a nimble retreat, succeeded in catching Du Chaillu's trousers in his terrible grip and tearing a piece out. A cup of water and some forest berries were procured for the prisoner, and when the company had retired out of sight he condescended to take his dinner. On the second day, however, he was even more vindictive and outrageous than the first. No one could go near his cage without he roared, and leapt, and mouthed, as though nothing short of rending his enemies to little bits would ever pacify him. Food was thrust between the bars of his cage to no purpose; he would neither cat nor drink, and met all advances with the most obstinate contempt.

On the fourth day he managed to gnaw his bars asunder, and the prison was discovered empty. The utmost consternation prevailed in the camp, the hands were called together, and a re-capturing expedition resolved on. However, the cunning Joe (so Du Chaillu christoned him) had not strayed far. Returning to his room to fetch a gun, a terrible, yet to the explorer's cars delicious, growling emanated from beneath the bedstead, and there was Master Joe Gorilla crouched down and regarding his master with an unmistakable "touch-me-if-you-dare" expression.

"How to take him was a puzzling question. He had shown such strength and such rage already, that not even I cared to run the chance of being badly bitten in a hand-to-hand struggle. Meantime, Joe stood in the middle of the room looking about for his enemies. I despatched some fellows for a net, and, waiting till he became quiet, opened the door quickly and threw the net over his head; rortunately we succeeded at the first throw in fatally entangling the young monster, who roared frightfully, and struck and kicked in every direction, under the net. I took hold of the back of his acck, two men seized his arms and another the legs; and thus held by four men, this extraordinary little creature still proved most troublesome. We carried him as quickly as we could to the cage, which had been repaired, and locked him in."

As he still continued his impish behaviour, starvation was tried, and not without success, for, when very hungry, he, after a fortnight's drilling, would occasionally snatch a mouthful of food from Du Chaillu's hand, immediately, however, retreating to a far corner of his cage to devour it. His yearning for freedom, however, was as strong as ever, and once more gnawing a hole in his gaol wall he was fairly off and away across the prairie, and halted not till he reached a clump of trees, into the midst of which he sprang and roared defiance to his pursuers. As, however, the men moved determinedly towards him, he made a sudden dash at the foremost one, and, being thus engaged, the net was once more cast over his head, and he was secured and carried, kicking and plunging, into the village. After this he was chained by the neck, and, seeing all chance of escape from bondage at an end, his wild spirit chafed and chafed till, ten days after his second recapture, he suddenly died.

This was not Du Chaillu's only experiment at gorilla rearing. However, he never succeeded, and expresses his operfect conviction that no one ever will succeed. He has tried them at all ages; from the tiny creature without teeth and unable to walk, to half grown "shavers" of the age and size of the terrible Joe. On the occasion of the capture of the youngest gorilla of all, a scene occurred of a peculiarly touching character.

"On the 25th I got a second young gorilla. This time I was accessory to its capture. We were walking along in silence when I heard a cry, and presently saw before me a female gorilla, with a tiny baby gorilla hanging to her breast, and sucking. The mother was stroking the little one, and looking fondly down at it; and the scene was so pretty and touching that I held my fire and considered like a soft-hearted fellow—whether I had not better leave them in peace. Before I could make up my mind, however, my hunter fired and killed the mother, who fell without a struggle.

"The baby clung to her, and with pitiful crics endeavoured to attract her attention. I came up, and when it saw me it hid its poor little head in its mother's breast. It could neither walk nor bite, so we could easily manage it; and I carried it while the men bore the mother on a pole. When we got to the village another scene ensued. The men put the body down, and I set the little fellow near. As soon as he saw his mother he crawled to her and threw himself on her breast. He did not find his accustomed nourishment, and I saw he perceived that something was the matter. He crawled over the body, smelt at it, and gave utterance from time to time to a plaintive cry, 'Hoo, hoo, hoo!' which touched my heart.

"I could get no milk for this little fellow, who could not eat and he consequently died on the third day after he was caught."





FRA M & PHOTOGRAPH BY T B. WILLIAMS

HOW THE GORILLA IS HUNTED.

ONE of the most serious difficulties of gorilla hunting is, that the haunts selected by the animal are so impenetrable and gloomy, that, to get a fair aim, it is necessary to approach within eight or ten yards. To meet a male gorilla means death to either yourself or him; and the only chance the hunter has of saving his life is, that his very first shot may stretch the hairy monster dead on the ground There is no such thing as reloading and trying your luck again : the gorilla gives no more than he asks—a single turn. You fire and miss; then woe betide you.

Knowing, then, that on a single trigger-pulling hangs his life, the experienced hunter takes care to reserve his fire till the animal's near approach makes his destruction tolerably certain. Flight, in case of failure, is simply absurd. "There have been negroes who, made desperate by their frightful danger, have faced the gorilla, and struck at him with the empty gun. But they have only had time for one harmless blow; the next moment, the huge arm comes down with fatal force, breaking musket and skull with one blow. I imagine no animal is so fatal in its attack on man as this, for the reason that it meets him face to face, and uses its arms as its weapons of offence just as a man or a prize-fighter would—only that it has longer arms, and vastly greater strength, than the strongest boxer the world ever saw."

The hunter having tracked his game, a dead halt ensues, and then, while the man nervously clutches his precious gun, "the beast advances by short stages, uttering his diabolical roar, and beating his vast breast with his paws, producing a dull reverberation, as of an immense bass drum. His walk is a waddle, and he balances himself by swinging his arms somewhat as sailors walk on ship-board ; and the vast paunch, the round bullet head, joined awkwardly to the trunk, with scarce a vestige of neck, and the great muscular arms and deep cavernous breast, give to this waddle an ungainly horror which adds to his ferocity of appearance. At the same time, the deep-set grey eyes sparkle out with gloomy malignity; the features are contorted in hideous wrinkles; and the slight sharply cut lips, drawn ap, reveal the long fangs and the powerful jaws, in which a human limb would be crushed as a biscuit. When the hunter has fired at the gorilla, he stands still : to run would be fatal. If the hunter has missed, he must battle for his life, hoping by some piece of unexpected good luck to escape a fatal blow, and come off, perhaps, maimed for life, as I have seen several in the up-river villages. Fortunately, the gorilla dies as easily as man; a shot in the breast. if fairly delivered, is sure to bring him down. He falls forward on his face, his long muscular arms outstretched, and uttering with his last breath a hideous death-cry-half-roar, half-shriek-which, while

it announces to the hunter his safety, yet tingles his ears with a dreadful note of human agony. It is this larking reminiscence (f humanity, indeed, which makes one of the chief ingredients of $t_{i,s}$ hunter's excitement in his attack of the gorilla."

As a rule, the natives of the interior are very fond of the meat of gorilla, which is dark red and very tough. Especial value is set on gorilla brain, which is made into two sorts of charms-one to give the wearer great success as a hunter, and the other, to make the fair sex look kindly on him. So dangerous is gorilla hunting accounted among the natives, that to kill one is to stamp a man as a brave fellow for the rest of his days. Doubtless it is the "charm" that does it ; the question of gorilla meat hardly entering into the business. To be a successful hunter and a successful suitor are the two sole aims of savage life; and no stronger inducement could be held out to tempt him to face the giant ape. In Du Chaillu's case it was very different; his stomach loathed the tough red meat, and he no more believed in the talismanic efficacy of gorilla brain than he did that the moon was made of green cheese. Pure love of scientific research, and a yearning to advance the cause of civilization, were the sole reasons for his becoming a gorilla hunter; though not so absorbed was he with anatomical speculations, but that he proved himself "every inch" a thorough sportsman; with a quick eye for danger, and a bold heart and a ready hand to meet it. His account of his first gorilla is brimful of terrible interest :---

"The singular noise of the breaking of tree-branches continued, and we walked with the greatest care, making no noise. The countenances of the men showed that they thought themselves engaged in a very serious undertaking; but we pushed on, until finally we thought we saw, through the thick woods, the moving of the branches and small trees, which the great beast was tearing down, probably to get from them the berries and fruits he lives on. Suddenly, as we were creeping along in a silence which made a heavy breath seem loud and distinct, the woods were at once filled with the tremendous barking roar of the gorilla. Then the underbrush swayed rapidly just ahead, and presently before us stood an immense male. He had gone through the jungle on his all-fours; but when he saw our party, he erected himself, and looked us boldly in the face. If stood about a dozen yards from us, and was a sight I think I shall never forget. Nearly six feet high (he proved four inches shorter), with immense body, huge chest, and great muscular arms, with fiercely glaring large deep-gray eyes, and a hellish expression of face, which seemed to me like some nightmare vision, thus stood before us the king of the African forest. He was not afraid of us. He stood there and beat his chest with his huge fists till it resounded like an immense bass drum, which is their mode of offering defiance, meantime giving vent to roar after roar.

"His eyes began to flash fiercer as we stood motionless on the defensive, and the crest of his short hair which stands on his forehead began to twitch rapidly up and down, while his powerful fangs were shown as he again sent forth a thundering roar. And now truly he



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DEATH OF DU CHAILLUS FIRST GORILLA.

again, and finally stopped at a distance of about six yards from us. And here, just as he began another of his roars, beating his breast in rage, we fired and killed him.

"With a groan, which had something terribly human in it, and yet was full of brutishness, he fell forward on his face. The body shook convulsively for a few minutes, the limbs moved about in a struggling way, and then all was quiet—death had done its work, and I had leisure to examine the huge body."

In this, as in almost every hunting incident quoted by Du Chaillu, the animal's inability to support himself for any length of time on his hind legs is especially noticed. On one occasion, when the gorilla advanced to within six yards (the length of an ordinary room) of the hunter before he was shot, it is said "his short and slender legs are unable to sustain the vast body. They totter beneath the weight, and the walk is a sort of waddle, in which the long arms are used in a clumsy way to balance the body and keep up the illsustained equilibrium. Twice he sat down to roar, evidently not trusting himself to this exertion while standing."

It is, however, consolatory to discover that throughout Du Chaillu's gorilla-hunting experiences, only one fatal accident occurred ; indeed, the business-like way in which mention is made of chasing and killing the animal — "my men brought in a large male" — "my hunters this morning brought in the remains of a gorilla "— "all that remained from dinner of a great gorilla," &c. &c.—that it would seem not nearly so terrible a beast to hunt as his shape and make would lead one to suppose. At the same time, it cannot be for a moment doubted that the severest test of a man's nerve and pluck must be to find himself in a deep, silent forest-valley, with the great boughs and snake-like creepers interweaving overhead, and making a deep twilight ; —face to face with a hideous roaring man-ape, and his life to pluck from its clashing jews. The situation, however, may be better realized by a description of the fatal gorilla hunt, as narrated by Du Chaillu himself :—

"Our little party separated, as is the custom, to stalk the woods in various directions. Gambo and I kept together. One brave fellow went off alone in a direction where he thought he could find a gorilla. The other three took another course. We had been about an hour separated, when Gambo and I heard a gun fired but a little way from us, and presently another. We were already on our way to the spot where we hoped to see a gorilla slain, when the forest began to resound with the most terrific roars. Gambo seized my arras in great agitation, and we hurried on, both filled with a dreadful and sickening alarm. We had not gone far, when our worst fears were realized. The poor brave fellow who had gone off alone was lying on the ground in a pool of his own blood, and I thought at first quite dead. His bowels were protruding through the lacerated abdomen. Beside him lay his gun; the stock was broken, and the barrel bent and flattened. It bore plainly the marks of the gorilla's teeth.

"We picked him up, and I dressed his wounds as well as I could

with rags torn from my clothes. When I had given him a little brandy to drink he came to himself, and was able, but with great difficulty, to speak. He said he had mot the gorilla suddenly and face to face, and that it had not attempted to escape. It was, he said, a hugo male and seemed very savage. It was in a very gloomy part of the wood, and the darkness, I suppose, made him miss. He said he took good aim and fired, when the beast was only eight yards from him, but the ball merely wounded it in the side. It at once began beating its breasts, and with the greatest rage advanced upon him. To run away was impossible; he would have been caught in the jungle before he had gone a dozen steps.

"He stood his ground, and, as quickly as he could, reloaded his gun. Just as he raised it to fire, the gorilla dashed it out of his hands, the gun going off in the fall; and then in an instant, and with a terrible roar, the animal gave him a tremendous blow with its immense open paw, frightfully lacerating the abdomen, and with this single blow laying bare part of the intestines. As he sank bleeding to the ground, the monster seized the gun, and the poor hunter thought he would have his brains dashed out with it. But the gorilla seemed to have looked upon this also as an enemy, and in his rage almost flattened the barrel between his strong jaws. Two days afterwards the poor gorilla hunter died."

THE NSHIEGO-MBOUVÉ.

THE nshiego-mbouvé (the original picture of which, among othera, we are enabled, through the courtesy of the publisher of Mr. Du Chaillu's book, to present to our readers) differs from the gorilla in being smaller, milder, far more docile, and in the singular habit of building for itself a nest or shelter of leaves amid the higher branches of trees. These singular shelters are generally built about fifteen or twenty feet from the ground, and invariably on a tree which stands a little apart from others, and which has no limbs below the one on which the nest is placed. Chaillu saw these tree-huts as high as fifty feet from the ground; but this was seldom.

A native tracker informed our gorilla hunter that the male and female together gather the material for their nests. This consists of leafy branches with which to make the roof, and vines to tie these branches to the tree. The tying is done so neatly, and the roof so well constructed, that we are assured it is hard to understand how any but human hands could accomplish the work. Like the gorilla, the nshiego is not gregarious. The nests are never found in companies, and solitary nests are occasionally found, "occupied by very old nshiego-mbouvés, whose silvery hair and worn teeth attest their great age—hermits who had retired from the nshiego world." Like the gorilla, too, they live on wild fruit and berries. One of the most singular features of nshiego-mbouvé domestic economy is that, although the male accepts the assistance of the female of his choice in his building operations,—she being "labourer" and he branch-layer—although he may not be averse to breakfasting or dining with her, he will not condescend to occupy the same house. Her domicile is erected in one tree, his in another.

As has been already observed, the nshiego is smaller than the gorilla; indeed, the largest nshiego-mbouvé shot by Chaillu measured but four feet and a few inches in height, while, as the reader will recollect, the largest of the man-apes, whose skin was preserved, was little short of six feet from head to heel. The chest of the nshiego is not nearly so capacious as that of the gorilla, and its entire muscular development on an altogether slighter scale. The arm of the nshiego is longer than that of the gorilla, one measuring, with the limbs spread wide apart, seven feet from finger-tip to finger-tip.

There is also a difference in the hair of the two animals; the nshiego's hair is longer, glossier, and blacker than the other, and, unlike the goriHa, its head is bald. The nose of the nshiego is not so prominent as the gorilla's; its mouth is wider, the ears are much larger, and the chin is rounder, and has some short thin hairs on it. The posteriors of the nshiego are bare, and there the skin is white. The eyebrows are of thin black hair, but long. The sides of the face are thinly covered with hair, commencing about the middle of the ear.

It appears that the nshiego-mbouvé has a much narrower range than the gorilla, and Chaillu only discovered it in the table-lands of the interior, and in the densest forests. It inhabits the same woods with the gorilla, and dwells in peace with that tremendous beast. "I have watched at different times," says Chaillu, "the nshiego retiring to its rest at night, and have seen it climb up to its house and seat *Itself* comfortably on the projecting branch with its head in the dome of the roof, and its arm about the tree. The roof is generally from six to eight feet in its greatest diameter, and has the exact shape of an extended umbrella." A month or so after Chaillu first made the acquaintance of the nshiego-mbouvé he had the felicity of capturing a baby of the species, and, according to the hunter's graphic description of the capture, and indeed of the behaviour of the little animal through its life, one cannot help being impressed with the notion that in appearance and manners the little nshiego approaches mankind, or at least human baby-kind, quite as nearly as the man-ape itself. However, the reader shall judge for himself :---

"We were crossing a kind of high table-land, when we heard the cry of a young animal which we all recognised to be a nshiego-mbouvé. Then all my troubles at once went away out of my mind, and I no longer felt sick or hungry. We crawled through the bush as silently as possible, still hearing the baby-like cry. At last, coming out into a little cleared space, we saw something running along the ground towards the spot where we stood concealed. When it came nearer, we saw it was a female nshiego-mbouvé running on all fours with a young one clinging to her breast. She was cagerly eating some berries, and with one arm supported her little one.

"Querlaouen, who had the fairest chance, fired and brought her down. She dropped without a struggle. The poor little one cried 'Hew! hew! hew!' and clung to the dead body, sucking the breast and burying its head there, in its alarm at the report of the gun. We hurried up in great glee to secure our capture. I cannot tell my surprise when I saw that the nshiego baby's face was pure whitevery white indeed-pallid, but as white as a white child's. The mother was as black as soot in the face.

"The little one was about a foot in height. One of the men threw a cloth over its head and secured it till we could fasten it with a rope. for, though it was quite young, it could walk. I immediately ordered a return to the camp, which we reached towards evening. The little nshiego had been all this time separated from its dead mother, and now, when it was put near her body, a most touching sight ensued. The little fellow ran instantly to her, but, touching her on the face and breasts, saw evidently that some great change had happened. For a few minutes he caressed her as though trying to coax her back to life. Then he seemed to lose all hope; his little eyes became very sad, and he broke gut into a long plaintive wail, 'Ooee! ooee! ooee!' which made my heart ache for him. He looked quite forlorn, and as



NSUIEGO-MBOUVÉ AND YOUNG

though he really felt his forsaken lot. The whole camp was touched at his sorrows, and the women were specially moved."

The little white-faced ape, however, whose bereavement so touched the tender-hearted hunter, was not inconsolable. Within three days after his capture he had become so far reconciled to the decrees of fate, as to take his food from his master's hand; and within a fortnight became so tame as to render a chain no longer necessary, and he was allowed to go where he pleased. The result was that he often went where he was not wanted; and he rapidly acquired a propensity anything but foreign to the lower grades of humanity, viz. to steal. "From me," writes his master, "he stole constantly. He soon found that my hut was better furnished with ripe bananas and other fruit than any others; and he also discovered that the best time to steal from me was when I was asleep in the morning. At that time he used to crawl in on his tiptoes, move slyly towards my bed, look at my closed eyes, and, if he saw no movement, with an air of great relief go up and pluck several plantains. If I stirred in the least he was off like a flash, and would presently re-enter for another inspection. If my eyes were open when he came in on such a predatory trip, he at once came up to me with an honest face and climbed on and caressed me. But I could easily detect an occasional wistful glance towards the bunch of plantains. My hut had no door, but was closed with a mat, and it was very funny to see Tommy (so the young nshiego was christened) gently raising one corner of this mat to see if I was asleep. Sometimes I counterfeited sleep, and then stirred just as he was in the act of taking off his prize. Then he would drop everything, and make off in the utmost consternation."

During the brief existence of little Tommy Nshiego he was guilty of every monkey trick ever perpetrated by his kind. He would sneak into the beds of the negroes on cold nights, greet his master in the morning with a shake of the hand and a "Hoohoo!" which in his language was evidently "good morning," take coffee at breakfast as decorously as a human being, and, to his lasting disgrace, on one occasion got "as drunk as a lord," on neat brandy. Says Chaillu, "I found my precious bottle—it was the last, and to the traveller in this part of Africa brandy is as indispensable as quinine—broken in pieces, and Master Tommy coiled up on the floor by the side of the fragments in a state of mandlin drunkenness. When he saw me he got up and tried to stagger up to me, but his legs tottered and he fell down several times. His eyes had an air of human drunkenness; his arms were extended in vain attempts to reach me; his voice came thick; in fact, he looked disgustingly, yet comically human. It was the mardlin and sentimental stage of human drunkenness very well represented. I gave him a severe thrashing, which seemed to sober the little toper somewhat; but nothing could cure him of his love of liquor. . . . But, alas! poor Tommy. One morning he refused his food, seemed downcast, and was very anxious to be petted and held in the arms. I got all kinds of forest berries for him, but he refused them all. He did not seem to suffer, but ate nothing, and next day, without a struggle, died—aged five months."

AFRICAN EXPLORATIONS OF MR. DU CHAILLU.

At the anniversary meeting of the Royal Geographical Society at Burlington House, Piccadilly, on Monday, May 27th, Sir Roderick Murchison, the chairman, thus spoke in connexion with the African Explorations of Mr. Du Chaillu.

"Among the great desiderata," Sir Roderick said, "which remained to be worked out in South Africa, one of striking interest, which was alluded to at our last anniversary, has been answered by Mr. Du Chaillu, a Frenchman by birth and education, and now a naturalized citizen of New York. We have since had an opportunity of hearing from the traveller himself an account of his strange experience, of seeing his collection of huge anthropoid apes, quadrupeds, reptilia, and numerous birds, and of reading a detailed narrative of his eventful wanderings. Livingstone was the first to reveal to us the great and important fact that the region of Central Africa, extending northwards from the Cape Colony to 8 deg. of south latitude, is a plateau-land occupied by great lakes, the waters of which, as previously suggested by myself, would be found to escape to the sea through gorges in subtending mountain chains of greater altitude than the central watery plains. Du Chaillu, on his part, has so extended his adventurous explorations from the Western Coast north and south of the Equator as to describe for the first time the complicated river drainage near the coast, which he has laid down on a map, and also to demonstrate that a lofty wooded chain extends so far into the heart of the continent as apparently to form a band of separation between Northern and Southern Africa. In many a tract to the north of this lofty zon-Mahomedanism has extended its sway ; but to the south of it, in these meridians, no green flag of the Prophet has yet been unfurled, while a few zealous missionaries, living on the coasts under the Equator, and on both sides of the mouth of the river Gaboon, have found centres whence to propagate the gospel of Christ. It was in one of those seats of the missionaries that young Du Chaillu, taken

thither by his father, who traded in the products of the country, first learnt tne rudiments of the native language of the adjacent tribes, and obtained sufficient information to induce him on his return to his adopted home to fit himself out with presents, medicines, and arms, and then to enter upon one of the boldest ventures which man ever undertook. In vain had the missionaries and trading blacks dissuaded him from such an undertaking, by depicting to him the savage characte of the tribe of men (many of them cannibals) among whom he must trust himself, to say nothing of the ferocity of the quadrupeds, and the impenetrable nature of the densely-wooded jungles and forests he would have to traverse. An intense love of natural history led him to plunge into these hitherto unexplored wilds. The giant anthropoid ape gorilla, specimens of which had a few years only been for the first time brought to Europe by traders on the coast, was known to fourish in all his pristine vigour in the interior, and many a curious quadruped and bird were described as being common to that region. The die was, therefore. resolutely cast by the young naturalist, and, with a few black carriers and canoes. and without one white attendant, he dashed into thickets where no European had ever put his foot. Gaining the goodwill of chief after chief, and being at length considered by their sable majesties as a white spirit whose wrath might be fatal to them, and whom they therefore propitiated, he has been enabled, not merely to describe the singular habits of these people, but also to make a sketch map of the region, and to define the course of the chief rivers, both before and after they unite in a network of streams as they approach the coast. When at the extreme eastern point of his tour, the information he derived from the natives led him to believe that the rocky and densely wooded mountains really extended for so great a distance to the east that they might be very wel! supposed to send out enbranchments into those highlands north of the Uniayembe Lake of Burton and Speke, which these authors called the Mountains of the Moon. Including periods of return to his friends the missionaries on the coast, and his voyages to and fro, he occupied nearly four years in these arduous explorations, and got together a greater quantity of apes, quadrupeds, and birds (many of them never before seen) than probably ever fell to the lot of any one traveller. It is not our province here to estimate the relative value of these animals, but we know that, in the opinion of some of the first zoologists of Europe and America, Mr. Du Chaillu has not only added greatly to their pre-existing acquaintance with the fauna of South Africa, but has, by his clear and animated descriptions, convinced them that he has been as close an eye-witness of the habits of the gorilla and his associates as he proved himself to be their successful assailant. Strikingly attractive and wonderful as were his descriptions, they all carry in themselves an impress of substantial truthfulness. Of this no one who has formed the acquaintance of Mr. Du Chaillu, and looked into his open countenance and met his bright and piercing eve. can for a moment doubt. Aware that the faithful description of a region so extravagantly exuberant in many natural productions, and inhabited by gigantic apes, and in one part by a cannibal race, would probably be doubted by some cavillers, Mr. Du Chaillu is quite prepared to meet such objectors. He knows as well as we do that many of the discoveries of Bruce in the last century were repudiated and treated as fables. But, with the advancement of geographical research, the detractors of Bruce have had their own names consigned to oblivion, while the wonderful and so-called 'travellers' tales " of the great Abyssinian explorer have been verified by his followers."

At the same meeting Professor Owen, in proposing Mr. Du Chaillu's health,

said, that although we previously had in England the skin of a young male gorilla. Mr. Du Chaillu had for the first time brought skins of full-grown male and full-grown female animals of different ages, with skulls and skeletons-the amplest, rarest, and most interesting illustrations of the lower creation that had ever reached Europe. Besides that, he had brought illustrations of at least two well-marked varieties of the chimpanzee. The condition of those skins showed that they had been preserved by means of arsenical preparations, such as an able, practised collector of rare animals would know how to use, and differing in that respect from the skins that were dried and brought from the interior by negroes. They indicated, in fact, that they had been prepared at the places where the animals were stated to have been killed. Then Mr. Du Chaillu had added considerably, and in very important respects, to our knowledge of the habits of those animals, and his statements clearly showed that they were based on direct and actual observation. When they were tested by what we previously knew of the gorilla, for example, they were found exactly to accord with inferences published previously to the appearance of Mr. Du Chaillu's book. We could not judge of the extent of a man's travels by the number of new species with which he returned. It would be very unjust to estimate the dangers and privations experienced by a traveller by such a test, inasmuch as a country like Tasmania, for instance, or New Zealand, having a climate like our own, would furnish him with almost as many new species as skins he might bring home; whereas, the conditions of life on the West Coast of tropical Africa were, on the whole, so similar, that the animals through a considerable range of that coast did not differ much in species. That arose from the law of geographical distribution. Animals and birds were described in scientific journals in America as new species that had never been disproved to be so. He believed that Mr. Du Chaillu had brought home new skins that were bond fide new; and they were sent over to America and described in their scientific journals as new. Then, if he had not brought home new species, he had brought home new illustrations of the most important and singular species, besides illustrations of at least two distinct varieties of the chimpanzee; and whether one judged of Mr. Du Chaillu by personal intercourse, by his material evidences, by what he appeared to have seen of the living habits of the animals he described-testing those accounts by what we know of their structure-or by the incident and style of his narrative, he impressed one with the conviction that he was a truthful and spirited man of hopour and a gentleman.

Mr. DU CHAILLU, who is a short, slender man, and, as will be seen by our portrait, of youthful—almost boyish—appearance, said he felt almost overwhelmed by the compliment which had been paid him; the more so as he had been the object of a bitter attack—he did not know why—but, relying on the truth of what he had written, he knew that in this noble-hearted country there were men who would do him justice. If he had been in his own country those attacks would have been rebutted by friends who had known him from his boyhood, and who knew that he was incapable of being an imposter. He entertained, however, not the slightest ill-feeling against any of his detractors. He was going to write to the missionaries whom he had mentioned in his book. They knew from the natives, and partly of their own knowledge, that he had gone through the country he had described, and many of those natives would remember him perfectly well. He had not the slightest fear that the truth would right itself in the end. He was only a boy, and the more he came in contact with great men in this and other countries, the more he was convinced that they would not see him crushed.



STRUCTURE OF THE RHINOCEROS.

NEXT to the mighty elephant the rhinoceros may claim place as the largest quadruped on the face of the earth, and judged by that standard of beauty with which we are familiar, the animal may as safely claim to take precedence of every other beast of the field on the score of ugliness.

There are four varieties of rhinoceros in South Africa, named by the natives the *borelé* or black rhinoceros, the *keitloa* or two-horned black species, the *mochocho* or common white rhinoceros, and the *kobaoba* or long-horned white rhinoceros. Although both *borelé* and *keitloa* are smaller than their cousins *kobaoba* and *mochocho*, and their horns seldom exceed eighteen inches in length, they are much the fiercest, and as far as we can learn from the best authorities, the most malicious and mischievous, and infinitely more formidable to the hunter than their pale-hided kindred.

The rhinoceros of Asia differs materially from his African brother. He is smaller, wears his hide in slatternly creases, and has—at least two of the species indigenous to Asia have—but a single horn. The third species of the Asiatic rhinoceros has two horns, and so far he resembles the African kind; but at that point similarity ceases. The hide of the African brute is comparatively smooth and tight-fitting; not so much so, however, but that its bagginess prevents an issue of blood should a hole be made in it with a bullet or javelin. Indeed it is a peculiarity of the rhinoceros, in whatever country he may be found, that he may be wounded to death, and not show the least sign of injury; he bleeds inwardly, and unless a weapon penetrates to his lungs, causing the life stream to exude from his respiratory organs, the hunter on coming up with his game might imagine it asleep rather than dead, by reason of the absence of a single sanguinary spot on its loose-fitting hide.

Up to a very recent date the belief in the impenetrability of the rhinoceros's hide was almost universal, and no wonder, since the gravest and most reliable authorities industriously promulgated the delusion. "The hardest bullet, nay even an ingot of iron will not pierce it," says an ancient writer. Now, on the contrary, a common leaden bullet will find its way through the bare, baggy hide, with the greatest facility. The error no doubt arose from the circumstance that rhinoceros-hide walking-sticks and whip-stocks as hard and tough as horn, are to be commonly met with ; but these strips are prepared by the natives by a tedious process. While warm and plastic from the animal's body, the strip of hide is soaked to further soften it, folded two or three times, and beaten with a hammer or heavy stone, till it is as tough as sole-leather; then it is baked in the sun for several weeks, reduced to the desired shape, scraped smooth with a bit of glass, and polished with dust. Nevertheless it takes a sharp knife to cut the raw hide,-a sharp one, though not necessarily a first rate specimen of cutlery. The best steel would be apt to snap during the operation, or to so completely lose its edge as to require something more potent than the first handy stone to set it on again. Mr. Galton says, "no knife is so good as a common butcher's knife; as a rule, soft steel, or even iron of ordinary quality, is better than hard steel."

Four distinct species of rhinoceros are known to exist in Africa. Two of them are black, and two white, or rather of colours more nearly approaching those than any other. Moreover, in the habits *cf* the animals there is as much difference as in the colour of their hides.

The largest of the rhinoceros family is he of Africa, the square-nosed white rhinoceros. A full-grown brute of this species will measure *eighteen feet* in length (Mr. Galton shot one eighteen feet six inches); the circumference of its broad back and low-hanging belly almost as much; while it is so low on its legs that a tall man a-tip-toe could see across its back. Attached to its blunt nose—not to the bone, but merely set in the skin—is a horn more or less curved, hard

as steel, sharp, and more than a yard long; and immediately behind this is a little horn, equally sharp, and shaped like a handleless extinguisher. Its eyes are marvellously little-so little, indeed, that at a short distance they are scarcely to be seen; at the same time, however, it should be borne in mind that the rhinoceros is of nocturnal habits; and, as it is with all such animals, by daylight the eyes are seldom seen to full advantage. Its ears are long, pointed, and tipped with a few bristles (these and a scrubby tassel at the extremity of its tail comprise the whole of its hirsute appendages). His senses of hearing and smell are wonderfully acute. Andersson says, "I have had frequent opportunities of testing both these qualities. Even when feeding, lying down, or obeying any passing demand of nature, he will listen with a deep and continued attention until the noise that has attracted his attention ceases. He 'winds' an enemy from a very great distance; but if one be to leeward of him it is not difficult to approach within a few paces."

Hunters universally agree as to the wonderful swiftness of this ponderous brute. Says Gordon Cumming, "A horse and rider can rarely manage to overtake it;" and Captain Harris echoes, "From its clumsy appearance one would never suppose it capable of such lightning-like movements." "He is not often pursued on horseback," says Andersson, who, without doubt, knows more of the animal than any other European, "and chiefly because his speed and endurance are such, that it is very difficult to come up with and follow him to say nothing of the danger attendant on such a course. Many a hunter, indeed, has thereby endangered his life."

Excepting a difference in the shape and size of the horns, the two species of white rhinoceros are so similar as to make a separate description unnecessary. The kobaoba, which is the rarer of the two, being found far in the interior, and chiefly to the eastward of the Limpopo, is frequently seen with the main horn exceeding four feet in length, and inclining forward from the nose at an angle of forty-five degrees; while the main horn of the mochocho seldom exceeds two feet, and is never found beyond three feet in length, and inclines backward. The posterior horn in both species is seldom more than six or seven inches long.

Concerning the horn of the rhinoceros, there exist many curious superstitions; one being, that when the animal is undisturbed by man and at peace with his fellows, its foremost horn is plastic as the trunk of the elephant, and put to the same purposes; but that when enraged, the accommodating implement stiffens to a weapon of war, and relaxes not till the ire of the terrible beast cools. This doctrine, however, may be not without foundation; for, as has already been stated, the horn is merely seated on the summit of the nose, having for its base a peculiar knob of bone. It is but a natural inference that a simple cuticular fastening would be insufficient to support an out-standing weight of five and twenty pounds, to say nothing of the tremendous feats of strength the animal has been known to perform with it. The root of the horn may be planted in a bed of muscle which, when the animal is at rest, may so far relax as to admit of the weapon swaying slightly, giving it, to the eyes of the furtively watching savage, an elastic appearance.



Rhinoceros horn is not nearly so valuable as an article of commerce as ordinary elephant ivory. It is chiefly used for sword handles, drinking cups, &c. Certain sorts have a pinkish tinge, and these
wre more esteemed than any other. The Turks make drinking vessels of this latter kind; and, according to the testimony of Thunberg, wonderful properties were supposed to be possessed by it. He says, "The horns of the rhinoceros were kept by some people in town and country, not only as rarities, but as useful in diseases, and for the purpose of detecting poison. As to the former of these intentions, the fine shavings of the horns, taken internally, were supposed to cure convulsions and spasms in children. With respect to the latter, it was generally believed that goblets made of these horns in a turner's lathe would discover a poisonous draught that was put into them by making the liquor ferment till it ran quite out of the goblet. Such horns as were taken from a rhinoceros calf were said to be the best, and the most to be depended on."

Nor does the above-quoted authority stand alone in his assertions as to the wonderful properties possessed by rhinoceros ivory. Kolben gives testimony to a like effect. "This horn," he says, "will not endure the touch of poison; I have often been a witness of this. Many people of fashion at the Cape have cups turned out of the rhinoceros horn-some have them set in silver, and some in gold; if wine is poured into one of these cups, it immediately rises and bubbles up as though it were boiling; and if there be poison in it, the cup immediately splits. If poison be put by itself into one of these cups, it in an instant flies to pieces. Though this matter is known to thousands of persons, yet some writers have affirmed that the rhinoceros horn has no such virtue. The chips made in turning one of these cups are ever carefully saved, and returned to the owner of the cup; being esteemed of great benefit in convulsions, faintings. and many other complaints." I can discover no more evidence on the above subject, and must therefore leave it, backed by the two grave and learned men I have just quoted, to the reader's discretion. Being in no dread of that most diabolical of all animals, the poisoner, I have no need to number amongst my worldly goods a goblet of pink-tinted rhinoceros-ivory, and in a case of spasms, should certainly put greater faith in essence of ginger than shavings of horn. However, "travellers see strange things."

BLACK RHINOCEROS (KEITLOA).

HABITAT OF THE RHINOCEROS.

At the time of its birth, the rhinoceros is about the size of a full-grown mastiff, and as a baby quadruped is certainly as unhandsome a beast as ever was seen, not even excluding the infant donkey. Its body is pig-shaped, its legs are unsymmetrical as those of a butcher's block, and its head like that of an ox-calf—9

very young calf, with its face much swollen, and out of shape. Surmounting its blunt square-shaped nose is the merest indication of a horn, which is of such slow growth, that when the animal has attained its sixth year, this formidable weapon is only nine inches long. The remarkable affection of the rhinoceros for its young is reciprocated. Should the parent beast be killed, its calf will lie down by the body all through the day, and night till the lions come out, when it is driven off to the nearest cover, there to have its baby heart rent by the sound of leonine voices in fierce dispute over the carcase of its mamma.

MAT IN COMMANNY

When it grows old enough, it fights for its parents as a dutiful son should. A modern traveller was convinced of this fact in a manner more forcible than pleasant. Having one moonlight night shot a female rhinoceros, it sheered off, but as he knew it was mortally wounded, he followed its "spoor," and presently found it lying dead, amongst the bushes. He walked carelessly up to the body, with his gun swung over his shoulder, when there suddenly leapt from the other side of the prostrate animal, its half-grown calf, as big as



A MOTHERLESS RHINOCERUS

a heifer, which, after making one or two offensive demonstrations, rushed bellowing into the forest, leaving the sportsman little hurt but much frightened. The young rhinoceros is, however, not very formidable before his horns grow. He can defend himself only with his teeth, and by butting with his unwieldy head. At this stage of his existence the wild dogs and hyenas have little fear of him, and hunt him down, or at least maul his poor ears so, that he carries their teeth-marks till the day of his death. Very few rhinoceroses are taken that do not bear such brands, Contrasted with the elephant, the rhinoceros is not an enormous eater. The one kept at the Zoological Gardens, Regent's Park, is fed on rice, clover, straw, and bran. His daily allowance is one truss of straw, three-quarters of a truss of hay, one quart of rice, and half a bushel of bran. Of water it consumes from twenty to twenty-four gallons a day. Large as this quantity may seem, the reader has only to turn to the pages devoted to the elephant to find at least two hundred pounds weight of various aliments is requisite to keep that animal in health : whereas the daily allowance of the Regent's Park rhinoceros must weigh less than ninety pounds. It should, however,

be borne in mind, that the nhinoceros in question is of the black species; a white one would doubtless consume considerably more.

Like all other animals of gigantic build, the rhinoceros needs a great supply of water, both to drink and bathe in. No matter how far removed his haunt may be from a fountain, once at least in twenty-four hours he visits it to quench his thirst



WHITE RHINOCEROS (ROBAOBA) - BUE FERS SHOOTING SCREEN

and renew his mud coat. Of this the hunter is aware, and takes full advantage. In the vicinity of these drinking places, a rough circular wall is built of the pieces of limestone generally abounding in the neighbourhood. The wall is about two feet high, and the inside space about seven feet across, so that the hunter can kneel at his ease, with his eyes just over the top. Here he waits patiently, till, says Mr. Galton, "all at once you observe twenty or thirty yards off two nuge ears pricked up high above the brushwood ; another few seconds and a sharp, solid horn indicates the cautious approach of the great chinoceros. Then the gun is poked slowly over the wall, which has before been covered with a plaid, or something soft to muffle all grating sounds; and you keep a sharp and anxious look-out through some cranny in your screen. The beast moves nearer and nearer; you crouch close under the wall lest he should see over it and perceive you. Nearer, nearer still; yet somehow his shape is indistinct, and perhaps his position unfavourable to warrant a shot. Another moment, and he is within ten yards, and walking steadily on. There lies a stone on which you laid your caross and other things, when making ready to enter your shooting screen: the beast has come to it; he sniffs the taint of them, tosses his head up wind, and turns his huge, full broadside on to you. Not a second is to be lost. Bang ! and the bullet lies well home under his shoulder. Then follows a plunge and a rush, and the animal charges madly about; making wide sweeps to right and to left with his huge horn, as you crouch down still and almost breathless, and with every nerve on the stretch. He is off; you hear his deep blowing in the calm night; now his gallop ceases; for a moment all is still, and then a scarcely audible 'sough' informs you that the great beast has sunk to the ground."

The white rhinoceros is a mild beast, an innocent eater of grasses, and inclined to peace; unless in defence of its calf, or when provoked to defend its life, it will rarely attack man. Its flesh is mellow, succulent, and of good flavour; and, as it yields between two and three thousand pounds of meat, the natives and colonists have considerable respect for it. His sable cousins, on the contrary—especially he whom the natives call *keitloa* (he is a trifle larger than his grim brother borglé, and has a longer neck, and both horns of an equal length)—are forcious and murderous. Simple herbs and grasses are aot sufficiently satisfying to his savage appetite, so he dines off the fish-hock thorns of the "wait-a-bit" bush, and digs with his handy fore-horn amongst the tough and stringy roots of the abundant scrub and underwood for his supper. Because of this peculiar diet he does not even atone for the sins of his life at the flesh-pot. He is ever a lean and wiry beast, and the acrid "wait-a-bit" imparts to his carcase such bitterness, that even the not over-fastidious Bechuana cannot swallow it without a wry face. While in its calfhood the black rhinoceros is not such bad eating, but then the calf of a white rhinoceros is said to make the choicest dish—albeit your cook may be no more delicate an individual than a shock-headed greasy savage—that can be set before the African sportsman. "A young calf," says Mr. Galton, "wrapped in a bit of spare hide, and baked in the earth, is excellent. I hardly know which part of the animal is best, the skin or the flesh."

There is not an animal on the face of the earth "keitloa" fears. Without the least provocation he will burst suddenly out of hiding, and attack the waggon of the traveller like a very demon, goring the harnessed and helpless horses, smashing in the panels of the vehicle, kicking over the cooking pot, and viciously giving the fire to the winds with his horn.

ATTACK ON THE WAGGON.

Every traveller who has encountered the savage brute has some such story to tell. He interferes with the domestic arrangements of smaller beasts, bursting into their family circle and polling about with his horn, bullying them the while.

Colonel Williamson tells a story of a rhinoceros that had taken up his quarters on the road to Morghor (India), and whose constant habit it was to attack all who passed that way. Williamson quotes an instance of the ferocity displayed by this brute. "Two officers went down the river towards Morghor to shoot and hunt. Having encamped for the night, they were awakened about daylight by a violent uproar, and going out found a rhinoceros savagely attacking and goring their horses that were tethered head and heels, and unable to offer the least resistance. The servants took to their heels, and the two officers (fearing, I suppose, to expose themselves by running back to the camp) climbed into a tree. As soon as the terrible beast had destroyed the horses, he turned his attention to the men in the tree, and spent a considerable time in endeavouring to dislodge them, and it was only when the morning advanced and the neighbourhood began to stir, that the rhinoceros reluctantly skulked off to his haunt among the reeds."

Should the lion and the keitloa meet, the former allows the latter a wide berth, and the huge elephant yields to him the path rather than risk a battle. Occasionally, however, the peaceful giant of the forest will lose all patience with his quarrelsome neighbour, and screw up his courage "to have it out" with him. But the extra strength of the elephant does not sufficiently compensate for his cumbrous gait, and the swift and sudden movement of keitloa gives him an immense advantage. A celebrated African sportsman once witnessed such a battle at Omanbondé, but in this instance the impetuous rage of the rhinoceros proved his downfall; for, having driven his terrible horn up to the hilt into the carcase of the elephant, he was unable to extricate it, and the latter falling dead of his wound, crushed out the life of his assailant in his descent. Mr. Andersson once witnessed a fight between a gigantic bull elephant and a black rhinoceros, and in the end the former turned tail and ran for his life.

That he will-not allow his passion for war to be hampered by the ties of blood and kindred, is proved by the seme gentleman. "One night while at the skärm," (a circular wall, built of rough stone, loosely piled on each other,) "I saw four of these huge beasts engage each other at the same time; and so furious was the strife, and their gruntings so horrible, that it caused the greatest consternation amongst



THE FIGHT.

my party, who were encamped a little way off. I succeeded after a while in killing two of them, one of which was actually unfit for food, from wounds received on previous occasions, and probably under similar circumstances."

The rhinoceros's best friend, and the rhinoceros hunter's most tiresome enemy, is a little bird, the *Buphaga Africana*, vulgarly known as the rhinoceros bird. It constantly attends on the huge beast, feeding on the ticks that infest its hide, the bird's long claws and elastic tail enabling it to hold fast to whatever portion of the animal it fancies. If it rendered the rhinoceros no further service than ridding him of these biting pests, it would deserve his gratitude; but in addition, it does him the favour of warning him of the approach of the hunter. With its ears as busy as its beak, the little sentinel detects danger afar off, and at once shoots up into the air, uttering a sharp and peculiar note, which the rhinoceros is not slow to understand and take advantage of; he doesn't wait to make enquiry, but makes off at once. Cumming asserts that when the rhinoceros is asleep, and the *Buphaga* fails to wake him with its voice, it will peck the inside of his ears, and otherwise exert itself to rouse its thick-headed friend.

A celebrated hunter pathetically recounts the miseries caused him through an entire day by this faithful but exasperating little guardian. Five several times did the indefatigable sportsman "spoor" his mighty game through boggy and tiring soil, and five times *Duphaga*, scenting his murderous approach, screamed an alarm to its animated pasturage, the oddly assorted pair at once making off—the bird a few feet overhead, the beast through the dense underwood. As something over a mile was the distance between the shifting-points, it can scarcely be wondered that the hunter at last lost his temper, and letting fly at poor *Buphaga* with a full rhinoceros charge, blew it to atoms. Bereft of



THE BUPHAGA AFRICANUS

its tiny protector, the big, blundering beast was laid low within half an hour. Easy enough, however, is it to understand the hunter in question, when he says, "I don't know how it came about, but certainly I felt a pang after destroying the little creature such as in my long hunting experience I never felt before. Moreover, slaying the giant brute afterwards gave me no consolation. It was very absurd, of course, but it struck me as something very like challenging a man to a duel, and making his death sure by previously tricking his weapon of defence."

As a rule, the rhinoceros will shun man's presence, and do its best to escape as soon as the hunter approaches. Like all other rules, however, this one is not without exception. In proof of this, Mr.

Oswell relates an adventure in which he was the hunted as well the hunter, barely escaping with his life. One day whilst returning to camp on foot, he saw at a short distance off, two rhinoceroses of the terrible keitloa species, approaching him as they grazed. He says : "I immediately couched, and quietly awaited their arrival; but though they soon came within range, from their constantly facing me I was unable to fire, well knowing the uselessness of a shot at the head. In a short time they had approached, but on account of the exposed nature of the ground I could neither retreat nor advance, and my situation became highly critical. I was afraid to fire, for even had I succeeded in killing one, the other would in all likelihood have run over and trampled me to death. In this dilemma, it suddenly occurred to me, that on account of their bad sight, I might possibly save myself by endeavouring to run past them. No time was to be lost, and accordingly, just as the leading animal almost touched me, I stood up and dashed past it. The brute, however, was too quick for me, and before I had made good many paces, I heard a violent snorting at my heels, and had only time to fire my gun at random at his head, when I felt myself impaled on his horn.

"The shock stunned me completely. The first return to consciousness was, I recollect, finding myself scated on one of my ponies, and a Caffre leading it. I had an indistinct notion of having been hunting, and on observing the man, I asked quickly why he was not following the track of the animal, when he mumbled something to the effect that it was gone. By accident I touched my right hip with my hand, and on withdrawing it, was astounded to find it clotted with blood; yet my senses were still so confused, and the side so benumbed, that I actually kept feeling and pressing the wound with my fingers. Whilst trying to account for my strange position, I observed some of my men coming towards me with a cart, and on asking them what they were about, they cried out that they had come to fetch my body, having been told that I had been killed by some animal. The truth now for the first time broke upon me, and I was quickly made aware of my crippled condition. The wound I had received was of a very serious character, and although it ultimately healed, it left scars behind which will no doubt remain till the day of my death."

This was not the only opportunity Mr. Oswell had of testing the unflinching courage occasionally exhibited by the rhinoceros. Once as, mounted on a first-rate horse, he was returning from an elephant hunt, he saw in the distance a magnificent white rhinoceros, bearing a horn of unusual size. Without a thought as to the danger of the proceeding, he spurred his steed, and was speedily neck and neck with his game. Instantly the deadly gun was levelled, and a bullet lodged in the thick-skinned carcase. Not fatally, however; and, worse than all, instead of "bolting" as is the animal's wont when wounded, it just stood stock still for a moment, eyeing the hunter with its vengeful little eyes, and then deliberately stalking towards him, made a sudden rush at the refractory steed, and thrust its horn completely through its body, so that the point of the tremendous weapon struck the rider's leg through the saddle-flap at the other side. The horse was of course killed on the spot, but the rider was so little injured, that he immediately followed and slew the rhinoceros.



As has been already observed, the rhinoceros of India differs from his African relative in the quality of his hide; the latter being comparatively sleek by the side of the former, which looks as though its coat were several sizes too large for its carcase. It would moreover appear to be a much better tempered, and more tractable beast. Bishop fleber, who saw several of this species of rhinoceror when he

was at Lucknow, says of them, "These are quiet and gentle animals. ... I should conceive that they might be available to carry burdens as well as the elephant, except that, as their pace is still slower than his their use could be only applicable to very great weights and very gentle travelling."

It was an Indian rhinoceros that in 1790 was brought to England, and bought by Mr. Pidcock as an addition to the Exeter Change menagerie. This seems to have been a remarkably good-natured animal. It is recorded "that his docility was equal to that of a tolerably tractable pig; he would obey the order of his keeper to walk across the room and exhibit himself to the numerous spectators who came to visit him." This docile creature, however, did not long survive to feast the eyes of the sight-seers. After being exhibited for two years, he slipped down, and dislocated his shoulder-bone. The calamity was attributed to "pure accident;" but in fairness it should be stated that "the animal was remarkably fond of wine, and often consumed three or four bottles in a few hours." There is, therefore, a grave suspicion that it was while labouring under the effects of intoxication, that Rhinoceros Indicus came to grief. No better proof can be adduced of the value that was set on the poor brute, than the fact that, its hurt being incurable, it was allowed to linger in pain for nine long months, when death happily released it. It is related of this animal that the incisions necessarily made in its leathern hide in the various attempts that were made to set the dislodged bone, were invariably found to have healed in twenty-four hours.

Like the rest of the species, the Indian rhinoceros prefers the marshy borders of rivers, and is never better pleased than when it can plunge its body shoulder high, in a substantial mud-bath, and emerging therefrom, saunter in the sun till the paste bakes and he is enveloped in an insect-defying jacket. There is not much fear of Rhinoceros Indicus shedding his miry coat inadvertently through energetic action; for, except when his ire is roused, he slouches along the very picture of indolence, one great lazy leg following the other, with his hanging lip almost dragging the ground seeking for green grasses and other succulent herbage.

. Nothing certain is known respecting the rhinoceros's duration of life, but it is generally believed that the Indian rhinoceros may easily reach a hundred years. Mr. Hobson informs us that a full-grown



THE JAVANUSE RHINOCFROS

animal of this species was captured and kept at Katmandoo, and that, after thirty-five years' durance, it did not exhibit the least symptom of decline.

The Javanese rhinoceros is a less bulky animal than the Indian species, and stands taller on its legs. While Dr. Horsfall was residing in Java, he had frequent opportunities of observing one that had become almost domesticated. It was taken when a mere baby in the forests of Keddu. Its favourite food was plantains; and it scooped for itself a couch in the soft earth within its pen. Sometimes, however, it would break bounds, and strolling among the huts of the natives, destroy their fences, which fell like reeds before his ponderous limbs, frightening the women and children out of their wits, to say nothing of taking most unwarrantable liberties with the fruit growing in their gardens. It would appear that the Javanese rhinoceros is unable to swim; for the end of the animal mentioned by Dr. Horsfall was that it was "accidentally drowned in a rivulet."



HOW THE RHINOCEROS IS HUNTED.

The Bechuana of Southern Africa, if he be rich enough, purchases a gun wherewith to attack the dauntless black rhinoceros, much preforring, as any one who has a chance of seeing Borelé in all his savage grandeur, will at once understand, to send the messenger of death in the shape of a bullet from a safe distance, than to bear it himself at the end of his soft-headed assagai; indeed, rather than risk the "pretty pickle" that would certainly ensue, if the ill-tempered blade should prove treacherous, the native who goes out to hunt the rhinoceros, prefers depending on his bow and poisoned arrows. This mode of hunting, however, at least so says Cumming and Andersson, and other sporting travellers qualified to judge, is extremely unproductive and tedious, in consequence of the poison (which the bushmen manufacture themselves from a sort of tarantula spider, by a process which they keep scrupulously secret) growing so hard and dry on the arrow-tips, that it either chips away on encountering the animal's tough hide, or else on penetrating the flesh remains intact and without dispersing its deadly qualities.

A well directed common leaden bullet, is sufficient to make the biggest rhinoceros bite the dust; but for a long range, say a hundred yards—two-thirds lead and one-third solder is best, or, better still, all spelter. The head of the rhinoceros is so thick, that there is little use in firing at it, and if it should be penetrated, it is a great chance that the bullet finds the animal's brain, as it is very small and confined in a chamber about six inches long by four high. Sparrman relates, that on filling this receptacle with peas, it was found to hold barely a quart. He tried a human skull, and found that it comfortably accommodated nearly three pints.

Mr. Andersson's experiences in hunting the rhinoceros, are of the most thrilling character. Although he slew scores of them from behind the "skärm," his favourite mode was to "stalk" them. He tells of a monstrous white rhinoceros that nearly put an end to his stalking. "Having got within a few paces of her," says he, "I put a ball in her shoulder; but it nearly cost me dear, for guided by the flash of the gun, she rushed upon me with such fury, that I had only time to throw myself on my back, in which position I remained motionless. This saved my life; for not observing me, she came to a sudden halt just as her feet were about to crush my body. She was so near to me, that I felt the saliva from her mouth trickle on to my face. I was in an agony of suspense, though happily only for a moment, for having impatiently sniffed the air, she wheeled about s of made off at full speed."

On another occasion, having wounded an enormous black rhinoccros in the fore leg, the brute was brought to a standstill, but in such an awkward position that without the aid of dogs further assault on it would have been attended with considerable danger; so, much against his will, Mr. Andersson was compelled to leave the wounded animal for a time. While, however, returning to his skärm by a roundabout route, he took an unlucky lane that brought him suddenly once more vis-d-vis with the sable monster. "She was still on her legs, but her position, as before, was unfavourable. Hoping, however, to make her change it for a better, and thus enable me to destroy her at once, I took up a stone, and hurled it at her with all my force; when, snorting horribly, erecting her tail, keeping her head close to the ground, and raising clouds of dust with her feet, she rushed at me with fearful fury. I had only just time to level my rifle and fire



"I SCRAMBLED OUT FROM BETWLEN HER HIND LEGS."

before she was upon me; and the next instant, while instinctively turning round for the purpose of retreating, she laid me prostrate. The shock was so violent as to send my rifle, powder flask and ball pouch, as also my cap, spinning in the air; the gun, indeed, as was afterwards ascertained, to a distance of fully ten feet. On the beast charging me, it crossed my mind that unless gored at once by her horn, her impetus would be such (after knocking me down, which I took for granted would be the case) as to carry her beyond me, and I might thus be afforded a chance of escape. So, indeed, it happened; for having tumbled over me (in doing which, her head and the forepart of her body, owing to the violence of the charge, was half buried in the sand), and trampled on me with great violence, her fore-quarters passed over my body. Struggling for life, I seized my opportunity, and as she was recovering herself for a renewal of the charge, I scrambled out from between her hind legs.

"But the enraged beast had not yet done with me. Scarcely had I regained my fect when she struck me down a second time, and with her horn ripped up my right thigh (though not very deeply) from near the knee to the hip: with her fore-feet, moreover, she hit me a terrific blow on the left shoulder, near the back of the neck. My ribs bent under the enormous weight and pressure, and for a moment I must, as I believe, have lost consciousness. I have, at least, very indistinct notions of what afterwards took place. All I remember is, when I I raised my head, I heard a furious snorting and plunging amongst the neighbouring bushes."

Blinded by rage and pain the furious brute rushed away headlong, and Mr. Andersson crawled home. He was, however, doomed to meet his enemy, the rhinoceros, once more. Knowing that the beast from the nature of its wounds could not have travelled far, he the next morning sent his half-caste servant, well armed, in search of it. The young man, however, had not been long gone before Mr. Andersson was aroused by a frightful human cry, and on hurrying to the spot whence it proceeded, there he saw the tremendous brute, its black hide stained red from its wounds, making at the half-caste on its three sound legs and uttering horrid gruntings, while the former, spell-bound with fear, and with every faculty but his voice utterly paralysed, stood full in the brute's path, shrieking. Before Mr. Andersson could get a shot at her, the crippled monster had advanced to within six feet of the helpless half-caste, when the contents of the rifle sent it staggering back. Another shot or two, and down sank the rhinoceros. The terrible battle was not even yet at an end; "though I now walked unhesitatingly close up to her," says Mr. A. "and was on the point of placing the muzzle of my gun to her ear to give her the coup de grace, to my horror, she rose once more on her legs. Taking a hurried aim I pulled the trigger and instantly retreated, with the beast in full pursuit. The race, however, was a short one-she

presently fell dead so near me that I could have touched her with the muzzle of my rifle."

It is a wonder that the experience of the gentleman in question did not teach him better than to approach too quickly an apparently dead rhinoceros. Several months before the occurrence of the above adventure, he caught a fright and heard a story which ought to have acted as a lasting warning. The fright was, that having brought down a rhinoceros, and being eager to see if the prize was a fat one, he leapt on its carcase and, African-like, plunged his knife into its fiesh to test its depth, when the not entirely defunct beast gave a sudden wriggle, causing the prideful hunter to scramble off the mountain of flesh and take to his heels.

The story was of some natives who had shot a rhinoceros as it was rising from its sleep. One of the party, having no doubt that the beast was dead, bestrode it (the animal invariably falls on its knees) and proceeded to gauge its flesh, as did Andersson. The act, kowever, instantly spurred the prostrate brute on to its legs, and off it thundered, still bearing on its back the affrighted gauger. Bewildered, however, by the shot that had brought it down, and by the cries and struggles of its rider, the animal stopped short, after galloping fifty paces or so, and turned round as though to enquire what on earth it all meant. Luckily, a well directed bullet from one of the gauger's friends settled the matter, and the giant steed sinking, for the last time, to its knees, the rider was released more frightened than hurt.

Mr. Galton tells an interesting story of a transaction that occurred between himself and a black rhinoceros, at Tonnobis, South Africa. "The Bushmen came to tell me that a black rhinoceros was lying wounded under some trees, about an hour off, and very savage; so I went to him, and put him up with a bullet as he lay twenty five yards from me. After the scrimmage which ensued, I ran after him, he going a lame trot, and I as hard as I could pelt, putting three or four bullets into him at long distances, and loading as I ran. At length we came to the edge of an open flat, that was about two hundred yards across. At the further side of that was a mound, on the top of which stood a fine overshadowing tree; and in the middle of the flat was a scraggy rotten stump, and two or three dead branches. The rhinoceros went across this, climbed the mound, and stood at bay under the tree. I did not much like crossing the open flat, but I thought I could certainly run two yards to his three, which would take me back in safety among the bushes, so I went my best pace to the middle of the flat, keeping the dead branches between me and him; they were a mere nothing, but a rhinoceros' sight is never keen, and his eyes were, I daresay, dim from his wounds. As soon as I came to the tree I dropped down on my knee, steadied my shaking hand against one bough, for I had run very far and was exhausted, and resting the muzzle of my heavy rifle in the fork of another, took a quick shot, and gave the beast a smart sharp sounding blow with a well placed bullet. He did not start or flinch, but slowly raised his head, and then dropped it down, blood pouring copiously from his mouth. He did this again and again ; at length he staggered a very little, then he put his fore legs out apart from each other, and so stood for some seconds, when he slowly sunk to the ground upon his broad chest, and died."

Doctor Livingston gives an account of a terrific encounter with a black rhinoceros, by his friend Mr. Oswell. The latter gentleman was stalking two of the huge horn-snouted creatures, and knowing the little chance there was of bringing either of them down by firing while their thick skulls were towards him, allowed them to approac¹ to within a few yards of him, depending on his nimbleness to escape, should his bullets fail to bring his game at once to the earth. Unfortunately, however, he was somewhat out in his reckoning; for no sooner had he pulled trigger than the great brute darted forward, and plunging his sharp horn into his assailant, tossed him high in the air. "My friend," says the Doctor, "lay insensible for some time, and on recovering found large wounds on the thigh and body. I saw that on the former part still open, and five inches long." Steadman in his "Wanderings in Africa," relates a story corroborative of the rhinoceros's tossing propensities. A native elephant hunter was the hero. He had pursued and wounded one of these formidable creatures, and was in turn pursued by it, and his horse killed under him by one lunge of the terrible long horn ; before the Hottentot could release and shoulder his gun, the rhinoceros came thundering at him, and thrusting his horn into the chest of the dead horse, threw it and the rider, who still bestrode the saddle, clean over his broad back, and then, with a triumphant grunt, trotted off into the forest's impenetrable depths.

The species of minoceros found on the island of Sumatra, resembles the African rhinoceros in having two horns; but in every other respect, is as different from it as the rest of the Asiatic species. Moreover, the Sumatran beast, although as large as many of his fierce brethren of the horned nose, is reputed to be as timid and inoffensive as the donkey, and, like it, will take fright and scamper off should the most insignificant cur bark at its heels.



SUMAIRAN RHINOCEROS.

CHARLES JOHN ANDERSSOK.

BEING of Aunt Chloe's opinion, that you may tell a gentleman "by the marks he makes," the writer has no hesitation in declaring his conviction that, as an indefatigable and painstaking traveller and explorer, and as a candid, sound, and conscientious narrator of the information derived from such travellings and explorations, Charles John Andersson stands unsurpassed. The writer has not the honour of a personal acquaintance with the gentleman in question-he never saw him, and it is probable he never may : he only knows him as all Europe knows him, through the "marks" he has made. In the same manner the Author of "Wild Sports" has made the acquaintance of many, indeed, of almost every European of modern times, whom a sense of religious duty, or worldly interest, or sheer love of adventure, or simple pleasure, has led to brave the dangers of faraway floods, and fields, and thirsty deserts, and pathless forests deadly-luxuriant. Each one has "made his mark"-more or less indelible-and for the assistance the author has derived therefrom he is ever grateful. Still, of the numerous family, he must confess to a special yearning towards one who among us has not his favourite ?) and that one is the author of "Lake Ngami."

In 1850 Mr. Andersson undertook, in company with Mr. Galton, an expedition into the wilds of South-western Africa, and penetrated into the then scarcely known Damara country, and further still, into the utterly unknown region inhabited by the Ovampo; a new route was also discovered by the two gentlemen to the wonderful lake whose name gives title to Mr. Andersson's invaluable book. After two years, the two adventurers returned to England, but Andersson, feeling not quite clear on many important points, resolved to go over the ground a second time, and penetrate as much farther than before as his good fortune would allow This praiseworthy undertaking was not without good fruit. As he himself says, "As will be seen, I have not only described the general appearance of the regions visited, but have given the best information I was able to collect of the geological features of the country, and of its probable mineral wealth ; and, slight as it may be, I have the gratification of finding that the hints thrown out at the Cape. and elsewhere were acted on-that mining companies were formed, and that mining operations are now carried on to some extent in regions heretofore considered as utterly worthless."

Blessed with a vigorous constitution, Andersson generally travelled on foot throughout the entire day, vieing with the natives in endurance, and shirking no task that promised to add one more grain to his garner of knowledge. Strong, however, as was his body, his will was stronger. Fatigue, hard fare, hard lodging, and pestilent air, at length forced him to succumb; his constitution was undermined, and to use his own language, "the foundation of a malady has been laid, that I fear I shall carry with me to the day of my death." "Yet," continues the brave heart, "did circumstances permit, I would return to this life of trial and privation."



SPOOL OF RUINOCEROS

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HAVING already at some length treated of the structure of the lion, it would be a mere waste of words to enter into as minute a description of each of the savage cat-kind as it makes its appearance

on these pages. All have the same sharp, curved, retractile talons, the same rasp-like, spine-covered tongue, the same obstacle-indicating bristles set round its jaws, the same lithe, muscular limbs (more or less powerful), and the same nature to crawl and creep, and fall on its prey unaware.

In disposition, however, the tiger differs essentially from the lion; with all the strength of the latter, it possesses ten times its agility, and a hundred times its cunning; but for pluck, audacity, and defiant sarriage, he is barely fit to "hold a candle," as the ancient saying is, to the monarch of the African forest. Present to the tiger—even to Tigris Regalis himself—your back, and you may presently expect to feel the weight of his mighty fore-arms, and to hear his murderous triumphant roar; but meet him with your fellow huntsmen face to face, and if he can run he will.

Although not so majestic in appearance, he is an infinitely more handsome-looking animal than the lion. On a bright tawny yellow ground, glossy black stripes bar the upper part of his symmetrical body, while the under parts of the chest, throat, and belly are a delicate cream colour; the hair with which each side of his face is tufted is nearly white, as is his tail, which is closely ringed with jetty bands. In length, he ranges from ten to twelve feet, and so graceful are his movements that he seems entirely made up of muscle and sinew, without such an unbending thing as a bone in his composition.

The natural supposition is, that so large and brilliant an animal must always be conspicuous, and an easy mark for the hunter. In any other region but that he infests, this would, without doubt, be the case; the Asiatic verdure, however, so nearly assimilates to the colour of the tiger's gaudy coat—the vertical stripings so perfectly harmonize with the glowing jungle-grass among which the tiger loves to crouch—that grass and fur are undistinguishable. Besides this advantage of colour, the creature possesses the power of flattening its fur and drawing in its breath till its body shrinks to such small dimensions as frequently to deceive the eye of the most wary Shekarry.

The strength of the tiger is prodigious. By a single cuff of his great fore paw he will break the scull of an ox as easily as you or I could smash a gooseberry, and then, taking his prey by the neck, will straighten his muscles and march off at a half trot with only the hoofs and tail of the defunct animal trailing the ground. An eminent traveller relates that a buffalo belonging to a peasant in India, having got helplessly fixed in a swamp, its owner went to seek assistance of his neighbours to drag it out. While he was gone, however, a tiger visited the spot, and unceremoniously slew and drew the buffalo out of the mire, and had just got it comfortably over his shoulders preparatory to trotting home, when the herdsman and his friends approached. The buffalo, which weighed more than a thousand pounds, had its skull fractured, and its body nearly emptied of blood.

HABITAT OF THE TIGER.

THE range of the tiger is not nearly so widely spread as that of the In Africa it is unknown, as also in every part of the New World ; lion. indeed, it may be regarded as an animal of purely Asiatic breed.

From three to five cubs, or "kittens," are the numbers born at a time, the tigress-according to native evidence, going with young but This seems a very short time, but as the tigress has no nine weeks. such dutiful and submissive mate as the lioness, and depends for food entirely on her own exertions, it may be a merciful arrangement of Providence that the poor beast should be incommoded for a no longer

period. A newly-born tiger kitten measures about twelve inches from nose to tail tip, yet its tiny

TIGER AND MUNIJAN DIES.



The kittens reside with the parent cats, till rather more than halfgrown, and capable of providing for themselves. Writing sportsmen are nearly unanimous in accusing the she-tiger of want of affection for her offspring, grounding the accusation chiefly on the fact that when the haunt of a tiger is being beaten, the kittens, as a rule, make their appearance first, and peer about as though to see what is the matter. This, say astute judges of tiger nature, is a cruel manœuvre of the mother's-she sends out her little ones that the hunters may expend their ammunition on them, and she herself escape before they have time to re-load. To my humble thinking, however, it appears much more likely that the kittens are actuated not by their parents' wishes, but by a weakness that urges into continual mischief every boy, and cub, and kitten, in Christendom -sheer inquisitiveness. Moreover, evidence of the tiger's love for its young is by no means scanty. Take, for instance, Captain Williamson's story of the two tiger cubs his men found in the jungle and brought to him. For safety the cubs were shut in a stable, but they made a great noise and refused to be comforted. On the third or fourth night their kittenish wailings found a response-faint at first, but speedily becoming fiercer and louder, till it came to the very stable door. It was the mother of the imprisoned cubs, and such was her tremendous wrath that the stable keepers, afraid for their lives, threw the kittens out at the window, when the affectionate brute was at once appeased.

In hunting his meat the tactics of the tiger are peculiar, and forcibly illustrate the deep cunning of his nature. Where game abounds, and cover is unequally distributed, he will leave his lair on a dark night and roar his loudest. Unacquainted with the "dodge," one would be apt to think, "Well, there is not much of cunning, or stealth, or subtlety in this proceeding; the frank brute comes out and roars 'look out! look out, deer, and ox, and wild boar! I'm abroad take warning!'" More odd still, that is exactly what the tiger wishes them to understand. He is acquainted with every foot of ground for miles round—knows the favourite haunt of this brute and of that, and when he roars he is aware that each herd will retreat in alarm to its peculiar quarters. Having roared them all home, then with the speed and silencé of the wind he appears in their midst and makes his supper certain. It is a wondrous and somewhat humiliating fact that, in one respect, the savage tiger, the type and emblem of all that is treacherous, and bloody, and cruel, might turn on his human reviler, and say, "After all, O clever, civilized, educated man, in *one* particular I am withopt reproach, while you must hang your head shamefully, and plead guilty : for, whereas, as your criminal records show, in the course of a single year, scores of the young and helpless of your species are abandoned, and left to perish, or at best to fight for their lives against a world of strangers, no one can truthfully say of a tigress that, even in the direst extremity it deserted its cubs." Only to think too, of the host of savage jaws and beaks that might be parted—from the golden cagle, whose eyrie is the mountain peak above the clouds, to the rat that burrows under the pavement, to cry, "Ah 1 how true ! such is exactly our case as compared with man, for all his bragging."

No animal, however, and despite all that has been said to the contrary, exhibits such devotedness towards its progeny as the queen of the cat tribe. Indeed, the fact is a proverb in the mouths of the native shekarries or beaters. Speaking of a miser they will say, "It is as easy to coax a tiger-kitten from its mother, as money from his coffers." The instance already given of the tigress who came in the night to the stable where her cubs were confined, is not the only one on record by many a score. Some years ago, some English officers camped in the vicinity of Mulkapoor, went out tiger hunting and bagged a splendid tigress. Whilst returning home with the trophy, they found in a secluded spot in the lee of a jagged rock, what evidently was the lair of a tiger, for there lay bones of both human and brute kind, and shreds and rags of clothing. More interesting than all, however, was the discovery of a tiny kitten not more than a fortnight old, coiled in a corner, winking and blinking, and gaping at the intruders. The hunters at once decided that this must be the cub of the beast they had slain, and willingly took charge of the little orphan.

Tiger kittens are not captured every day, so when the hunters returned to their quarters, the excitement in their tent was considerable. The newly acquired kitten was provided with a tiny dog collar and chain, and attached to the tent pole, round which it gambolled to the delight of an audience, numbering nearly twenty. About two hours after the capture, however, and justers it was growing dusk, the good people in the tent were checked in the midst of their hilarity, by a

sound that caused the bravest heart there to beat rather irregularly. It was the roar, or rather the combination of shriek and roar peculiar to the tiger when driven mad with rage. In an instant the gämbolling kitten became every inch a tiger, and strained with all its baby strength at the tether, while it replied with a loud wail to the terrible voice outside. The company were panic-stricken. There was something so sudden and unearthly in the roar, that it seemed as though the great tiger brought in an hour or so before, had come to life again. Certainly the tiger in question was already flayed, but the picture conjured up became not the more pleasant for that. These was, however, not nearly so much time allowed for speculation to the scared company as writing these lines has cost; for, almost simultaneous with the roar, there leapt sheer into the centre of the tent a bold tigress, and without deigning to notice a single man there, she caught her kidnapped baby by the nape of its neck, and giving it a jerk, snapped the little chain, and then, turning for the tent door, trotted off at full speed. After all, it appeared that the little thing did not belong to the tiger that was slain, but to the brave mother that had tracked and recovered it. Sanguinary man-eater as she may have been, one

can be scarcely sorry to hear that not a gun was levelled at the great rejoicing creature as she bore off her young one, and that she got clear off. The buffalo is one of the very few animals not subject to panic on the mere approach or scent of the tiger, indeed, a full grown bullbuffalo is much too formidable a customer for any but a tiger-royal to dare attack. Even he, will not attack a herd, or, if he should, his death is certain. The courageous beasts will not leave a companion to the tiger's mercy. Should a tiger, through stress of hunger, venture to attack one of the band, the remainder instantly club hoofs and horns, and in a few moments the spangled monster is gored from



UNION IS STRENGTH.

throat to haunch, and trampled in the dust. Buffalo-herders are aware of this, and will guide the drove to pasture through swamps and covers well known to be infested by tigers, without the least fear of an attack.

No such unity exists among herds of oxen. Should one of their number be seized the rest rush off headlong, their eyes glaring, and their tails bolt upright with fright, and never stop till many a mile lays between them and their terrible enemy. As to the unlucky bullock; after springing from his lurking-place and striking it down, the tiger rips up its throat and laps up the red stream as fast as it flows. That will do for the present, so leaving the carcase, he retires to the nearest shady bush and crouches down for a doze after the comforting draught. In the cool of the evening he rises and goes to work on the beef, beginning at the tail end and eating fairly and evenly towards the head. He is not at all fastidious, stickling not at either hair, skin, or bone, nor pausing till he has consumed sixty or seventy pounds of the meat, except it be now and then to slake his thirst at a convenient pool. While the tiger is at supper he keeps up exactly the same sort of growling as does a cat under the same circumstances if a strange dog happens to be present. Then, full of meat, he strolls home, and for the next three days does nothing but sleep, wake to quanch chis thirst, sleep again, till presently he wakes more hungry than **thirsty**; then, hey for another prime fat bullock !

The scraps uncates by the tiger are seldom left to taint the air. "Almost directly after a bullock has been thus killed," says Lieutenant Rice, a tiger hunter of great renown, "vultures begin to assemble from all points, being somehour soon aware of the 'murder,' either by their sight or sense of smell, which must be extraordinarily powerful, for perhaps not one of these birds will be in sight immediately before the 'kill' takes place. Jackals, also, contrive to be somehow well aware of the fact, for they, too, begin to assemble on the spot, but both these and the vultures have the good manners to wait until the tiger has quite finished his meal. The vultures perch patiently on some neighbouring tree; the jackals sit down at a respectful distance.

"After the tiger has dined, there is a regular scramble for the remaining portion of the dead bullock; the jackals chasing away and jumping up at the vultures as they swoop past them whilst trying to filch some scrap of meat or entrails, in the most ridiculous style. Somehow, the birds always contrive to avoid the vicious snaps made at them by the jackals. These curs having, perhaps, each retired with some bone to gnaw at leisure, the vultures begin in earnest, soon completely clearing up every shred of meat, leaving the bones beautifully picked."

The tiger is an excellent swimmer, and knows nothing of the fear of a wet jacket, evinced by that member of the cat tribe with which we are all familiar. Should he be hard pressed, he will spring from the river bank, and cleave the stream as cleverly as any waterspaniel. He rides higher in the water than the dog, and therefore affords a tolerably good mark to the sportsman who has chased him to the river brink. He has been known even to board the flat-bottomed craft peculiar to Eastern waters, compelling the crew to take to the boat and row ashore for their lives, leaving the audacious brute to do as he pleased; the business generally ending in the uncontrolled ship beating to land, and the four-legged pirate leaping out and scampering off, as though glad to escape a seafaring life.

The animal's most favourite haunt is amongst patches of a dense shrub, called Korinda, and common throughout most parts of India. It is not a tall growing bush, but its leaves are closely set, and broad, and droop so as to form a series of dark, leafy tunnels, affording at once, delightful shade and hiding to the stealthy beast. As a rule, the tiger lurks on the road side opposite to his lair, so that he has no need to turn with his prey, but, holding by the grip that killed it, leaps lightly forward, and is at home in a twinkling. Should he miss his mark, it is seldom he renews his spring-at least for the time-he seems ashamed and mortified at being such a bungler, and bounds off with a smothered roar. Made audacious by hunger, the tiger will not scruple to steal to the verge of a village, and climbing to the roof of one of the shallow hut-like dwellings, scratch away the thatch, and with a great leap and a loud roar suddenly announce his presence in the midst of a quiet family. Sometimes, however, this trick costs the bold housebreaker dear. It has happened that hearing him tearing at the roof, the inmates of the dwelling have silently escaped, closing the door fast behind them; so that, when the tiger leaps from the roof to the floor he finds nothing to eat and himself beautifully trapped, on the well known principle of its being infinitely easier to leap into a chasm than out of one. A tiger in such a fix has little or no chance of escape, as before he has recovered from his surprise a half-dozen matchlocks are pointing at him through the chinks of the walls, and he may probably receive the bullet that ends his life through the very hole in the roof he himself has made.

There have been recently published some painfully interesting statistics of the annual sacrifice of human life by wild beasts in India. It appears that within the past two years no less than 999 children were killed, principally by wolves :---1859 : Killed 6 men, 1 woman, and 467 children-474; injured, 33 men, 3 women, and 83 children-119; total, 593. 1860: Killed, 9 men, 4 women, and 432 children-445; injured, 24 men, and 31 children-55; total, 500 The greatest destruction of life occurs in the Umritsir division, where 347 children were killed during 1859, and 299 in 1860. In the Goojranwalla district 77, and in Umballa district 18 children were killed in 1859, and 23 and 70 respectively last year. The number of wild animals destroyed is not so considerable as one would expect, seeing that Government has paid in two years, 14,386 rupees, as rewards for the destruction of 4,225, which includes a large proportion The total number of each description of animal killed, of cubs. stands thus :--- In 1859 : Tigers, 12; leopards, 192; bears, 187; wolves, 1,174; and hyenas, 2-total, 1,567. In 1860: Tigers, 35; leopards, 163; bears, 350; wolves, 2,080; and hyenas, 30-total, 2,658. The greatest number of tigers were killed last year at Umballa, namely, 13; and at Kangra the most leopards, 80. Bears also are found principally at Kangra, as out of the 350 killed throughout the Punjab, 306 fell in this district.





FROM A PHOTOGRAPH BY ALFRED MCORE.

HOW THE TIGER IS TRAPPED AND HUNTED.

The owners of the stolen oxen do not suffer the tiger's ruinous raids to be perpetrated with impunity; occasionally, the thief is brought to justice and a violent death in a way he little expects. One of the measures of revenge adopted by the herdsmen, is to construct a light but strong scaffold, about eighteen feet high, near the spot where the half-devoured carcase is found. To the top of this platform the boldest man of the company mounts, armed with a matchlock loaded with an iron slug, and a "tulwar," a thick-bc.eked, razor-edged implement, very terrible in the hands of a strong-wisted man. As the enemy approaches, the friends of the lofty sentinel take a tender farewell of him, and take themselves out of harm's way.

By and by, the tiger rouses in his lair, shakes himself, and thinks what shall he have for supper. At last it occurs to his gluttonous mind that there is some of yesterday's bullock left, and that, if the jackals and vultures have missed it, it will do for a snack. So he trots to the spots finds the meat just as he left it, and sprawling by the side of it, prepares for a leisurely meal. Meanwhile, the man on the scaffold among the trees, is not asleep. His eyes follow every one of the tiger's movements, he rests his heavy matchlock on the protecting rail atop of the platform, and takes such deliberate aim, that in nine cases out of ten, the iron slug finds the heart of the brindled thief, and he rolls over, dead, Sometimes, however, the gunner's hand will falterest, the critical moment, and the savage best be only painfully wounded. Then, guided by the report of the matchlock, the tiger's glaring eyes discover its assailant, and creeping for a moment, to gird its tremendous sinews, it utters its manderous boar, and leaps at the platform. Now is the strength of the freil-looking erection tested;, should it come crashing to the ground, as; sure as the matchlock-man was born he will presently become tigers meat. This, however, does not often happen. The tall bambeo shafts will bend considerably before they will break, and though the man may be subjected to an unpleasant rocking, he will be all right if he holds on tightly. Another thing in favour of this stage is that, the surface of the bamboo is so hard and sharp, that the talons of the brute find by no means easy anchorage ; and all he may take by his prodigious leap, will be a heavy fall : should he, however, manage to hook on to any of the interstices within reach of his human foe, then the terrible tulwar is raised, a great paw lopped off, and down drops the tiger, helpless as By this time, the shouting of the matchlock-man, and the a log. noise of his piece, and the roaring of the savage beast, has roused half the adjacent village, who swarm to the spot, armed according to their means, and mingle with their loudly expressed praises of the tiger slayer, the bitterest reproaches, and bravest taunts for their now impotent foe.

The bereaved cattle owners occasionally take an even more terrible, and at the same time an equally safe and certain revenge on the tigrine marauder. On the probability of the bullock slayer returning to the scene of his morning exploit to supper, the herdsmen gather certain red berries growing in the jungle, and which are as deadly poisonous as our "nightshade," pound them to powder, cut slits it the dead bullock, and rub the poison in bountifully and thoroughly. Out comes the hungry brute at dark, and, squatting down at his case, begins; but before he has demolished a dozen pounds or so, he finds his blood heated to fever heat, and his mouth dry and parched; he goes to the nearest stream and laps greedily; that settles his business; in ten minutes he is stretched on the bank, a dead tiger.

Once, while in ambush on the banks of the river "Nerbudda," Captain Langley saw a poisoned tiger come down to drink and die; but, it singularly happened, there were awaiting his approach two other potent agents of death—the Captain's rifle and the jaws of a monstrous alligator. Rushing towards the river, the tiger plunged in and commenced lapping the water with greedy avidity, as if to allay the burning fire raging within from the effects of the poison. He then came out and commenced rolling on the ground and biting savagely at



THE IUG OF WAR.

the bushes. A second time he took to the water and made as though he meant to swim across, and the Captain, to end the agony of the

poor brute, was about to pull trigger, when an alligator rose suddenly and snapped at the tiger with his terrible jaws. Instantly the brute forgot his sufferings, and fell on the alligator tooth and nail. Teeth and nails, however, made little impression on the mail coat of the amphibious monster, who did his best to haul the tiger down to his slimy bed, and, to prevent it, the latter fought and beat the water with his broad fore-arms till hills of foam partially hid the combatants from the sportsman's view. Now they sank, now they rose again, the hooked teeth of the alligator never losing their grip, and the white foam taking a deeper tinge each moment. The struggles of the forest prowler, however, grew fainter and fainter; and drowned, poisoned, and mauled by the terrible teeth, he was about to succumb. But the alligator was not destined to have all his own way. Just as he stretched his ugly body out of the water, the better to take a pull long and strong, a bullet from the Captain's rifle smote his exposed side and turned him belly upwards, dead as a herring. A ball from the second barrel mercifully ended the tiger's existence.

Besides those enumerated, the natives of various tiger infested countries adopt many other modes more or less ingenious of destroying the tiger. There is the "spring-bow," a machine that in its working bears a strong resemblance to the "downfall" invented by the African savage for the destruction of hippopotami. A great bow is prepared, and strung with tough gut line. Across the path-generally a narrow one-chosen by the tiger are fixed two posts, and to them are attached the ends of the bow in such a manner, that the string of it is parallel with the narrow passage. A blunt stick is then inserted between the bow and the bow-string, bending the weapon just as it appears in the hands of a strong archer the moment before he releases the shaft. Next a long wedge is driven between the end of the blunt stick and the inner side of the centre of the bow. To the thick end of the wedge a string is attached, and brought forward and stretched across the path in such fashion that the approaching animal must press against it. Then the arrow, round the head of which is bound a thread impregnated with deadly poison, is laid across the bent bow, and the contrivance is complete. By and bye comes along the tiger, his chest presses the wedge-string, the wedge is released, as is the blunt stretching stick, as is the poisoned arrow, and swift and silent as lightning, it carries certain death to the brute against which it is aimed.

Another native "dodge," is simply to build a stout bamboo cage with wide interstices, carry it to the grim depths of the jungle at nightfall, and armed with a "tulwar," get inside and wait. Presently Tigris Regalis sniffs you, and approaching your cage, rears against it, and with teeth and claws endeavours to remove the obstacle that stands between him and "man for supper." This is exactly what the "man" wants, and with one heavy thrust through the bars, the glistening "tulwar" is stained red up to the hilt, and the besieger either falls dead or staggers back to his lair, where the huntsman next morning seeks his carcase. It is easy enough to track a wounded beast in an Indian jungle, for though his blood-drops may be swallowed by the thirsty earth, there are sure to be swarming at every spot an army of tiny ants, rapaciously scraping and tearing, as though tiger's blood were a dainty to be made the most of when met with.

Another tiger trap is constructed exactly on the principle of our old-fashioned mouse-trap, only that the bars are of bamboo instead of wire, and for fear the animal should be clever enough to put his paw in at the door and claw out the bait,—generally alive,—it is enclosed within another cage, not to be reached without the tiger goes far enough in to admit of the sliding door clapping to.

The most ingenious plan of all, however, is that adopted by the natives of Oude, and a few other places. They manufacture a sort of birdlime of a wonderfully tenacious character, and spread the surface of the broad leaves of the prauss tree very thickly with the sticky stuff. Discovering the tiger's haunt, a few hundred of these smeared leaves are spread about-face upward of course-and then the trappers adjourn to a safe distance, so certain of their game that they begin to cut pegs, and make other preparations for stretching its skin; nor are they mistaken. The tiger, without the remotest suspicion of trap, comes sauntering along to where the birdlime is strewn, and presently one of the big leaves sticks to his paw. Like all cats, he is very particular about his paws, and gives the member a vigorous shake to release it of the clammy thing ; not succeeding, he tries what a whisk at the side of his head will affect, and thereby gets his whiskers and eyes smeared with the treacly composition. He loses his temper (never held very securely), and has by this time probably been furnished with sticky green pattens on every foot, with several of the same festooning his angry tail. He becomes furious and bites at
the limed leaves, and rolls amongst them till eyes, ears,—every inch of him in fact, is covered, and he becomes a perfect tigrine "Jack in the green." His impatient roars attract the leaf-spreaders, who warily approach the blind beast, and dispatch him by a shower of bullets.

There is yet another way by which the wily native lures the tiger to destruction; viz., by the gara or live bait. The bait is a worn-out



bullock or a goat, tied securely to a tree stump, while the hunter armed with a matchlock, lurks in ambush near at hand. Success however, is by no means certain to attend this system; for the tiger is just as hkely to fancy the lurking gunner as the tethered bait; and while the former has all his

faculties concentrated in the direction of the latter, the tiger may glide stealthily to his rear, securing at a stroke, man for dinner, and goat for supper.

MAN FOR DINNER, GOAT FOR SUPPER.

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Certain sects of natives will not "inform" against the tiger, although their herds are impoverished by its onslaught, and they know its haunt perfectly well. Begot of dread, a superstitious delusion has rooted amongst them as regards the murderous beast, and they tell you that if merely wounded, the tiger will turn "man-eater" for the remainder of his life, and if killed outright, his relations will not fail to hear of it, and devote their future existence to revenging his death.

Within a mile of the village of Botta Singarum, Mulkapoor, there stands by the wayside, a heap of stones. Week by week the heap increases in size; for it is the custom of the inhabitants of the adjacent villages, never to pass the mound without adding another stone, though never so little a one. May the shadow of that heap never be less; for it marks the spot where a few years since, fell one of the most terrible "man-eaters" the world ever saw. It was an Englishman who rid the world of that monster; but the name of tho bold hunter I can't tell, knowing him only as he is generally known by his self-dubbed title, "The Oid Shekarry."

Whilst sojourning within two days' journey of Hydrabad, one of his scouts, deputed to gather hunting intelligence, came one morning and reported as follows.

"Near Botta Singarum, one village two coss (four miles) off, there got one *burra bagh* (big tiger), who kill plenty men, Sahib; he ate one old woman yesterday. *Boht shytan hy, Sahib* (he is a great devil, sir), for though all shekarmen and village people plenty, plenty, looking never can find; when all come home, tiger go kill one man. *Wo burra chor hy* (he is a very great thief, sir)."

Enquiry more than substantiated the accusations made against the terrible *Burra bagh*, that not only was he a great thief, but a wholesale nurderer to boot. That lurking amongst the dense brushwood which skirted the highway, he had within the last six months seized and devoured *forty* of the inhabitants, amongst whom were sixteen *running postmen*. (In India, the letters are carried in leather bags on men's shoulders, who are relieved every five miles.) That, over and over again, he had snatched off the cattle watchers, leaving the cattle untouched; and that it was little use seeking him, as he never remained two nights at the same place.

Our "Old Shekarry" was, however, of another opinion; so he

mustered his companions and followers, and fully armed, set out to discover the monster. After toiling through miles of noisome jungle, they approached a dense mass of underwood, from which plainly came growls and the sound of crunching bones. Dropping on his hands and knees, the bold "Shekarry" crept through the dense screen, and at once found himself in the man-eater's home.

The man-eater, however, was from home, and the crunching and growling had proceeded from two gaunt jackals, who were snarling and feasting on a few human scraps their master had disdained. Says the "Old Shekarry": "This was evidently the hecatomb of the man-eater, for I counted from skulls and other human remains, about twenty-three victims of both sexes, as we could see from the hair, clothes, broken armlets, and gold and silver ornaments belonging to native women. We picked up two massive silver bracelets, belonging to his last victim, whose remains were identified by the villagers who were with us. We also found two gold *teekas* or neck ornaments, which mark the married women, and a knife, which we were assured, had belonged to a postman missing about a month before."

There was no use in continuing the pursuit for that day at least, as the keen-scented beast was not at all likely to venture home with the hunters at his door; so the "Shekarry" and his gang returned to camp, there to plot some certain means of arresting the career of *Burra bagh*.

Plans, more or less impracticable were discussed, till finally the old Shekarry himself suggested and volunteered to carry out a plot as terrible as it was ingenious. It was this: The post-runners to whom the man-eater was so partial, were accustomed to wear at the ends of the bamboo to which was slung the letter-bags, a bunch of rings and jingling metals that folks might know who was coming. This jingling it was assumed had served as a fatal call for *Burra bagh*, who hearing it in the still evening, although a mile distant, would at once know that a postman was abroad, and comport himself accordingly. The Shekarry proposed that he should go alone, armed, and bearing the post jingles, ring a challenge to the horrid man-eater, and fight him for his life.

"The sun had almost set as I proceeded down the road, and although I was perfectly cool and as steady as possible, I felt cold drops of perspiration start from my forehead as I approached the spot where so many victims had been sacrificed. I passed along curefully listening for the slightest sound, and now and then shaking my jingles.

"While ascending the side of a ravine, I heard a slight noise like the crackling of a dry leaf; I paused, and turning to the left fronted the spot from whence I thought the noise proceeded. I distinctly saw a movement or wirring in the high grass, as if something was making its way towards me; then I heard a loud purring sound, and saw something twitching backwards and forwards behind a clump of low bush and long grass, about eight or ten paces from me, and a little in the rear. It was a ticklish moment, but I felt prepared; I stepped back a couple of paces in order to get a

better view, which action probably saved my life, for immediately the brute sprang into the middle of the road, alighting about six feet from the place where I was standing; I fired a hurried shot ere he could gather himself up for another spring, and



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when the smoke cleared away, I saw him rolling over and over in the dusty road, writhing in his death-agony, for the shot had entered the neck and gone downwards into his chest. I stepped on one side and gave him my second barrel behind the ear, when a slight tremor passed over his limbs, and all was still. The man-eater was dead and his victims avenged."

Lieutenant Rice relates a tiger-hunting adventure, during which his comrade, Cornet Elliot, had one of those marvellous escapes that lead one almost to believe in "charmed" lives. Having together fired at a tiger, the wounded brute escaped through the jungle, and was speedily out of sight. Being a very fine animal, however, they were loth to lose him, and set about tracking him by his broad footprints, and here and there a few spots of blood. "These we followed with much difficulty through a dense patch of thorn bushes and high grass, for about three hundred yards-keeping all the men well together in a body, while we led the way. Presently we came out of this thick jungle on to an open space, but here all traces of the tiger suddenly ceased. Elliot and myself advanced a few paces in front of the men, to more minutely examine the ground for the tracks before they should be obliterated or trampled over by the feet of so many persons following us. While thus engaged, we were startled by a loud roar from a small ditch a few paces to our right. At this time Elliot was stooping down, about twenty yards on my left, busily employed in looking for prints. The roar was instantly followed by the tiger, that came charging down at great speed straight for me. I had barely time to fire both barrels of my rifle, at only two or three paces' distance, into her chest, when these shots or the smoke caused the beast to swerve past me, and make straight for Elliot, whom she at once sprang on literally before he had time to get his rifle ready. The next instant, I saw him falling backwards under the tigress, which was growling and roaring over him fearfully. My shekarries with admirable coolness and presence of mind handed me my spare loaded guns. I instantly fired two more shots at the beast's shoulder, as she stood over poor Elliot, but these shots had little effect, for she at once commenced dragging him backwards by the upper part of his left arm, which she had seized in her jaws, down a gentle slope, towards the ditch where she nad at first been lying hid. The ground was very uneven, being

covered with broken pieces of rock, so I greatly feared to again fire at the tigress lest my friend should be hit instead, for as his face was touching her head, no steady shot could be had at her brain, as she bumped him over the stones.

"Elliot had fainted while the tigress was thus carrying him. She continued growling, all the time looking fully at us; I followed at about eight yards' distance, watching to get a clear shot at her head it would have been useless aiming at any other part. At last, after aiming two or three times in vain, there was a chance, when my ball luckily struck her on the top of the skull, whereupon she at once Iropped poor Elliot, and rolled over dead on the top of his body, bringing her paw down on his chest. ^T quickly gave her the other barrel, and then ran in with the rest of the Bheels, and pulled out Elliot by his legs from under the tigress."

The assaulted hunter was quite sensible when released from his terrible foe, and asked for a drink of water. Although his life was spared, he was terribly mauled—his left arm frightfully crushed and bitten, and his entire body pinched and bruised. When the tiger first sprang at him, he had put up his musket with both his hands, and thus guarded off the death-dealing paw. The stock of the rifle was marked with her claws, while the trigger and guard were knocked completely flat.

The same gentleman tells of another adventure almost harmless, and even ludicrous as it happened, but which might have terminated very differently. The shekarries having been started to look up game, returned, and reported the footprints of two large tigers on the bank of a neighbouring river. The hunting company set out, and for a long time beat about the cover in vain. At last, the lieutenant, thinking the game might possibly be hidden in a clump of korinda bushes, waded into the stream, which was about four feet deep, and by the time he had got half-way across, made out what he was pretty sure was a lurking tiger, at the spot suspected. He returned to the bank and fired a random shot across the stream inta the bush, and sure enough out sprang a tiger, which was shot dead by a ball in his skull, just when he had risen to leap the stream ; indeed he fell half into the water.

"Thinking that all the sport was now over, the man in a body went round to the dead tiger by a ford higher up the river, and were standing close round it, pointing out to each other the shot-holes, admiring the skin, and talking over its death, and the mischief it had done amongst their cattle, as they usually do, when suddefily a most appalling roar was heard to proceed from the very midst of them. The effect this caused was ludicrous in the extreme, for with one accord they precipitated themselves into the stream with a great splash, and regained the opposite bank in the utmost terror, each struggling to be first across the river. On hearing this roar, all our guns being unloaded at the time, and knowing there must be another tiger close by, we also sought safety in flight-Little (his companion) got under a bush, while I quickly gained the top of a large thorn-tree nearest me, well scratched in the process; for at the time my costume was extremely scanty, as on coming out of the water, feeling much chilled, I had taken off my clothes to dry in the sun, and was standing merely in my brown shirt. The next moment we were horrified to hear that a man had been killed, but we afterwards found that he had been only knocked over and rather severely clawed.

"It seems that on hearing we had killed the first tiger, this man, who had been posted up a tree to look out by himself, hastened to join the rest of the beaters while they were rejoicing, and talking over the dead tiger. All this time there was another tiger, still in the very bush in which we had killed the first one, but as long as the men remained in a body, though only two yards from them, it kept quite still. On seeing this man approach the bush alone, the beast rushed with loud roars upon him, knocking him down, and actually running off with his turban. It then went off at a racing pace, dashing straight away for the hills."

This is not the only recorded instance of a tiger "turning up" when least expected. A celebrated Indian sportsman was once nearly led into a terrible dilemma. He was out deer-stalking, and, after some considerable trouble, came to a spot where he could command a convenient view of his game. Covering a fine buck, he was about to touch the trigger, when his attention was attracted to a slight waving of the grass a few yards distant, and before he could settle in his mind what it could be, a tiger made its existence known by a terrible roar, and the next instant its talons were fixed in the throat of the poor animal the sportsman had marked as his own.

Another instance is related, of a ship's captain, who went ashore to

shoot peacocks. Having "winged" one, he hurried forward to secure it, knowing that when so wounded, the bird in question will, after it has reached the ground, run a long distance, and sometimes too quickly to be overtaken. Rushing through the jungle grass, he reached the spot where it was about to fall, but was horrified to find himself almost in the midst of a family party of tigers—three of them—that had evidently been roused from an afternoon's nap by the noise of the fowling-piece, and were yet winking and blinking amazedly. Leaving them to settle the matter with the wounded peacock, the sportsman took to his heels, and paused not till he leaped into the boat waiting to row him to his ship.

As the reader has been made aware, it is against the rule to admit into these pages hunting adventures of ancient date; but there is one that pleads so hard on account of its venerable age—seventy years next birthday—and its extreme respectability, that exception shall be made in its favour. It is the celebrated story of Mr. Munro, the hero of the sanguinary tragedy performed on Saugur Island, December 23, 1792.

"To describe it (says Captain Consar, one of the unfortunate young man's companions) is impossible. Captain George Downey Lieutenant Pyefinch, poor Mr. Munro (of the Honourable East India Company's Service), and myself went on shore, on Saugur Island, to shoot deer. We saw innumerable tracks of tigers and deer; but still we were induced to pursue our sport, and did so the whole day. About half-past three we sat down on the edge of the jungle to eat some cold meat, sent to us from the ship, and had just commenced our meal, when Mr. Pyefinch and a black servant told us there was a fine deer within six yards of us. Captain Downey and I immediately jumped up to take our guns; mine was nearest, and I had but just laid hold of it, when I heard a roar like thunder, and saw an immense royal tiger spring on the unfortunate Munro, who was sitting down; in a moment his head was in the beast's mouth, and it rushed into the jungle with him with as much ease as I could lift a kitten, tearing him through the thickest bushes and trees, everything yielding to its monstrous strength. The agonies of horror, regret, and, I must say, fear (for there were two tigers), rushed or me at once; the only effort 1 could make was to fire at the tiger, though the poor youth was still in its mouth. I relied partly on Providence, partly on my own aim, and

fired a musket. The tiger staggered, and seemed agitated, which 1 took notice of to my companions. Captain Downey then fired two shots, and I one more. We retired from the jungle, and a few minutes after Mr. Munro came up to us, all over blood, and fell. We took him on our backs to the boat, and got every medical assistance for him from the *Valentine* Indiaman, which lay at anchor near the island, but in vain. He lived twenty-four hours, in the utmost torture; his head and skull were all torn and broke to pieces, and he was also wounded by the animal's claws all over his neck and shoulders; but it was better to take him away, though irrecoverable, than leave him to be mangled and devoured. We have just read the funeral service over his body, and committed it to the deep. Mr. Munro was an amiable and promising youth.

"I must observe, there was a large fire blazing close to us, composed of ten or a dozen whole trees. I made it myself, on purpose to keep the tigers off, as I had always heard it would. There were eight or ten of the natives about us; many shots had been fired at the place; there was much noise and laughing at the time, but this ferocious animal disregarded all.

"Its head appeared as large as that of an ox, its eyes starting fire, and its roar when it first seized its prey will never be out of my recollection. We had scarcely pushed our boat from that cursed shore, when the tigress made her appearance raging almost mad, and remained on the sand as long as the distance would allow me to see her."

In Java, it is an ordinary regal pastime to pit a tiger against a buffalo for the edification of royalty and the court favourites. The fight usually takes place in a pit securely railed off from the spectators by strong palisades. The tiger is brought in one cage, and the buffalo—always a strong and trained animal—in another. When all is ready, an attendant unfastens a trap at the top of the buffalo's cage, and reaching in, anoints the creature's back with a composition that makes it roar with pain. Then, plunging and half-mad he is let into the arena. Next, fire is thrown into the tiger's cage, and the door slipped open and the wretched beast (against its will sometimes, as it is common to keep the tiger under such circumstances a week or so without food, till it is greatly weakened) forced out to where the buffalo is. Generally, the buffalo being a powerful and educated animal, the victory is on its side, unless, indeed, it happens to make a mistake in its first rush at the tiger; then the latter will at least have his fill of buffalo blood before the indignant lookers-on can riddle it with bullets.

Mr. Melville, to whose masterly pencil is due the graphic picture accompanying this description (as well as a host of others of like excellence, adorning these pages) was a few years back an eye-witness of one of these combats, that took place in the dominion of the Sultan of Madura.

"On our arrival at the Sultan's palace," says Mr. Melville, "after a courteous reception, and the customary refreshments, we proceeded to a large courtyard, to the north of the square at Baukalary, where a circular inclosure had been formed of square poles and strong bamboo. The inclosure was partially roofed over, and a convenient stage erected for the Sultan and his friends.

"The tiger about to be baited had been in captivity twenty days, and during the whole of that period had refused any kind of food, a circumstance evidently much regretted by its tormentors, who plainly saw there would be, on the part of the poor brute, little or no resistance to their bloodthirsty machinations. The tiger was confined in a cage within the inclosure. Presently, a large water-buffalo was led in : he was a fine specimen-the picture of a mild and docile brute, and evidently well trained. The appearance of the buffalo was greeted with considerable applause, and the attendants above sprinkled it with cool water, for which kindness it seemed particularly grateful. No such good-will was exhibited to the famished, thirst-stricken tiger. Everything being in readiness for the fray, the sliding door of the poor brute's cage was raised, but the spirit of the inmate was thoroughly tamed, and it refused to stir. Its lethargy was, however, unceremoniously disturbed by the introduction of a bundle of flaming bamboo thrust into its den, and it then consented to be unkennelled, howling and fighting the fire.

"The buffalo was in no wise dismayed to see the great savage cat at liberty. With business-like coolness it lowered its formidable horns to the ground, and, making as it were a pivot of its hind legs, wheeled round and round, ever watchful of the tiger who paced round the ring, and evinced a much greater desire to escape than to fight. At last it made a great leap at the upright posts that seemed to promise a way out of the pit, but was immediately repulsed by those who congregated above, armed with stones, and pikes, and blazing torches. The buffalo was ready to second the assault of



the tiger's human foes. Beat back, the wretched creature slid and scrambled down the hard, slippery bamboo, sheel on to the horns of the expectant buffalo, that tossed him so high in the air, that he fell like a dead thing. He, however, was not to be let off so easy. Fire and scalding water were poured on the prostrate animal, that, roused once more, drew its bruised body to the palisade, and essayed to climb up again, to be thrust down and again impaled on the buffalo's pitiless horns. So it was gored, and trampled and beaten, till it lay in the middle of the area, beyond even such urgent stimulants as fire and scalding water."

Mr. Melville also mentions that in parts of Java it is customary to employ men, known as "tiger guards," whose business it is to keep watch at hight that the premises are not entered by tigrine marauders. To the astonishment of the above-mentioned gentleman and his friends, spearmen were stationed in the verandah of the house where they lodged; and whenever they set out after dark, though on never so simple a journey, the said spearmen, each bearing a flaming torch, marched with them. This was not always pleasant; but regarding it as a mere ceremony,—a custom of the country,—no objection was made. One night, however, a man was snatched by a tiger and borne off to its lair, and the European company made aware of the value of the spearmen as a "tiger guard."



TIGER GUARD.

Much more might be written concerning the various schemes and stratagems invented by cunning man for the destruction of the crafty and formidable tiger. To the savage mind it is much more satisfactory to take the dreadful beast alive, or so to encompass it that it shall be helplessly aware of the hand that hurts it, than to kill it outright, and at a distance, and take possession only of its inanimate carcase. The horrid performances in the Javanese tiger-pits, and the many other instances of a like nature quoted by Bishop Heber, Drayson, and others, go to show that uncivilized mon living in regions where abound the tiger, and such mighty game, regard the animals not as irresponsible creatures following the dictates of their proper natures, but as malignant enemies, actuated by the worst passions, and ever plotting their ruin. It is in this spirit the human savage meets the senseless brute, and having trapped and put it beyond mischief, taunts, and abuses, and tortures it. So it is, even from the mouths of their deadly rifles, that the European teaches the savage forbearance and mercy.



LOOKING-GLASS TRAP.

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LIEUTENANT RICE.

THIS gentleman may fairly claim to rank among the mightiest of modern Nimrods. In his famous book, "Tiger-hunting in India," he presents the world with the narrative of his tiger battles, waged during such odd times as could be spared from his military duties as lieutenant in the East India Company's service. Unfortunately for the tigrine family, these "odd times" were neither few nor far between, for from the beginning of 1850 to 1854, the lieutenant enumerates 365 days devoted to the noble sport. The Indian "season" for nunting large game extends over only three months in each year, so that it will be seen at once that Mr. Rice has little to regret on the score of time lost.

Within the 365 days mentioned, he bagged sixty-eight tigers, and wounded thirty others, which got away to die, doubtless; for, as has been observed already, a tiger's wounds fester and poison the whole system in a very short time. When it is considered how many human lives the destruction of this hundred tigers may have saved; when one reflects that in a single district a solitary and bloody man-eater may count his human victims by the score, the successful tiger-slayer becomes an object of something more than applause,—of gratitude and sincere respect.

As has been shown, Mr. Rice's many tiger trophies were not obtained without terrible peril—so terrible, indeed, that the hunter, thinking that in some cases the reader may have a suspicion that "varnish" has been used without stint, appends to his book the names of several Indian officers as a warrantry of its truth from the first page to the last. It must be a very unpleasant thing to come before the public and say, I am not a cheat ; ask Jack, and Tom, and George if I am ! when, however, one is obliged to put to sea where abound piratical craft, and craft sailing under fair colours, but laden from stem to stern with fiction and rubbish, one must not be blamed if he not only exhibits the union-jack at his mast-head, but tacks to it as many vouchers as it will bear, in proof of its genuineness.

It is comforting to find that Mr. Rice is not disposed to rest on his laurela. He seems as thirsty for tiger blood as is Tiger Regalis himself for human ; and in the very book where all his terrible adventures and narrow escapes are set down, he begs that he may be transferred to a Madras regiment, because "the tigers of Singapore, owing to the uneven nature of the soil, are more dangerous than their brethren of Rajpootana. In return for so great a boon, I can only pledge myself to offer the beasts either of these agreeable alternatives,—they shall have frequent chances of either 'eating' my bullets or myself."



SKELETON.

STRUCTURE OF THE HIPPOPOTAMUS.

RESPECTING the amphibious character of this animal's life. Broderip says, "we are induced to look for some machinery, which enables it to remain below the surface of the water. The venous reservoirs of the seals, and the arterial plexiform receptacles of the whales, will instantly occur to the physiologist. The latter are most complex and ample, as might be expected of organs, fitted to secure a supply of aërated blood to the brain, derived from a heart that sends out some ten or fifteen gallons of blood at every stroke, through a tube of a foot in diameter, with immense velocity. One hour and ten minutes ordinarily elapse from the time of a whale's descent below the surface, to that of his rising again to breathe, and Leviathan has been known to remain under for an hour and twenty minutes. It has been calculated that about a seventh of his time is consumed in respiration. The seals, in their natural state, have been known to remain under water for periods varying from a quarter of an hour, to five and twenty minutes : but it has been observed, that a seal in confinement has remained asleep with his head under water for an hour at a time. The period during which a hippopotamus can remain submerged does not appear to have been accurately defined; but as the animal walks leisurely about at the bottom of a river, from five to ten minutes may probably be spent by it, when disposed to remain so long without coming up."

There is nothing very terrible in the appearance of the hippopotamus when he is calm and unexcited. Gertainly he has not a pretty mouth, and the four great tusks that protrude from between, and viciously curl up the corners of his leathern lips, are weapons by no means to be despised. Glancing however from the mouth of the animal to its enormous belly, the former does not appear much too capacious for its natural functions. Speaking of its habits, a recent traveller says, "Naturalists and others represent the hippopotamus as of a mild and ineffensive disposition. It may be so in regions where it is unacquainted with man; but from the numerous and unprovoked attacks made by these animals on voyagers, and the very great dread entertained of them by the savage tribes who live in their neighbourhood, I am inclined to believe them not quite such harmless animals as we are given to understand." Indeed, travellers generally agree as to the wonderful power of the animal's jaws, which, according to Ray, are hung as are those of the crocodile, viz. the upper jaw as well as the lower being movable.

Captain Owen bears the following testimony to the power of jaw possessed by the hippopotamus. "We had just commenced ascending the stream, when suddenly a violent shock was felt underneath the boat, and in another moment, a monstrous hippopotamus reared itself from the water, and in a most ferocious and menacing attitude rushed open-mouthed at the boat, and with one grasp of its tremendous jaws, seized and tore seven planks from her side. The creature disappeared for a few seconds, and then rose again, apparently intending to renew the attack, but was fortunately deterred by the contents of a musket discharged in its face. The boat rapidly filled; but as she was not more than an oar's length from the shore, the crew succeeded in reaching it before she sank."

Mr. Moffat is another witness. "A native, with his boy, went to the river to Junt sea-cows. Seeing one at a short distance, below an island, the man passed through a narrow stream, to get nearer the object of his pursuit. He fired, but missed, when the animal immediately made for the island. The man seeing his danger, ran to cross to the opposite bank of the river; but before reaching it, the sea-cow seized him, and literally severed his body in two with its monstrous jaws."

He is, when on land, an ungainly looking brute. When full grown the male measures twelve feet in length, and as much in circumference; and its legs are so stumpy, that the belly of the animal trails the ground where it is the least hilly—its body indeed, more than anything, resembles in shape a hogshead perched on four short billets of green timber. Its nostrils and ears are placed nearly on the same plane; its eyes are largish and prominent; its ears, small, charp, and stiff-looking, and surmounted by a few hairs, and its naked hide—an inch and a half thick—is of a deep chocolate colour. The interior of its mouth is one of the most repulsive sights that can well be conceived; being like nothing else that I can think of, but a hole made with a jagged instrument in a mass of salmon's flesh.

The formidable teeth of the hippopotamus, never exhibited but when the animal is much excited, are very remarkable; according to the growth and age of the animal—especially as regards the molars—they vary very much in form, number, and position. The long sub-cylindrical incisors and the canines—the latter being enormous tusks terminating in a sharpened edge, which reminds the observer of that of a chisel of the lower jaw give a terrific aspect to the mouth when it is open. This tremendous apparatus, formed principally for tearing and bruising more than grinding, is a fit crushing mill for the coarse tough plants which are transmitted to a stomach capable of containing, in a fullgrown hippopotamus, from *five to six bushels*. Three bushels, at least, of half masticated vegetables have been taken from the stomach and intestines of one half grown.

The nostrils, which are so placed that they appear first above the surface when the hippopotamus rises from his water bcd, can be closed like those of the seal, when the animal descends into the deep, and opened when it comes up for the purpose of taking in a supply of air. "The nostrils of this animal," says Professor Owen, "are situated on prominences which the animal has the power of raising; on the upper part of the broad and massive muzzle are short oblique slits, guarded by two valves, which can be opened and closed spontaneously like the eyelids. The movement of these apertures are most conspicuous when the beast is in his favourite element."

The eyes of the hippopotamus have at first sight a rather singular appearance, and convey the impression of unnatural protrusion of eyeball. This, however, is far from being the case. As in eagles and some other birds of prey, where the horny ring and muscles form a telescopit apparatus, the eye of the hippopotamus is capable of protrusion or withdrawal at the will of the animal, so as to adapt

it for vision in the different media where it is to act, whether the animal be on land, just under the water, or far down beneath its surface. "This beautifully contrived organ," says Broderip, "is unlike that of any mammiferous quadruped known to me. It approaches, in its power of rolling round when in a state of protrusion, to that of the chameleon, and like it must command a very extensive area." Owen, who is one of the best authorities on the subject, states that the skin is almost flesh-coloured round the eyelids, which defend the peculiarly situated and prominent eyes, and that there is a single groove or fold above the upper eyelid, and two curved grooves below the lower one. At first, as he truly remarks, they seem devoid of evelashes; but on a close inspection, a very few short hairs may be seen on the thick rounded margin of the upper lid. He further observes, that the protruding movement of the eyeball from the prominent socket, shows an unusual proportion of the white, over which large conjunctional vessels converge to the margin of the cornea, and that the retraction of the eyeball is accompanied by a protrusion of a large and thick palpebra nictitans, and by a simultaneous rolling of the ball obliquely downwards and inwards, or There is, he adds, a carbuncle or protuberance on the forwards. middle of the outer angle of the nictitating lid. The colour of the iris is dark brown, the pupil a small transversely oblong aperture, and the eyeball relatively small.

The last-quoted authority describes the voice of the hippopotamus as "a loud and short harsh note, uttered four or five times in quick succession, reminding one of the snort of a horse, and ending with an explosive sound like a bark." Sparrman uses the words *hëurh hurh hesh-heoh*, to give some idea of its cry, the two first words being uttered in a hoarse but sharp and tremulous sound, resembling the grunting of other animals, while the third, or compound word, is sounded extremely quick, and is not unlike the neighing of the horse : some say the noise resembles the bellowing of the buffalo. It would moreover seem that they who have considered the matter, are at as great a loss to designate the voice of the hippopotamus, as to express the quality of its tone. Some call it barking, others grunting, others snorting, while another, not presuming to give the noise a name, declares that it resembles nothing else than the creaking of a great rusty gate on its hinges. According however to Major Denham, despite his decidedly unmelodious voice, Behemoth has an ear for music. During the excursion to Munga and the Gambarow, the major's party encamped on the verge of a lake frequented by hippopotami, and intended to shoot some of them. A violent thunderstorm prevented the sport; but next morning they had a full opportunity of convincing themselves that these uncouth animals are not only not insensible to musical sounds, but strongly attracted to them, as seals are attracted by whistling. As the major and his suite passed along the borders of Lake Mugaby at sunrise, "the hippopotami followed the drums of the different chiefs the whole length of the water, sometimes approaching so close to the shore, that the water they spouted from their mouths reached the persons who were passing along the bank."



SAULL OF HIPPOPOT/ MUS.



"that lieth down in the shade of the trees, in the covert of the reeds, and fens;" "whose bones are as bars of iron;" "He cateth grass, like an ox;" "The shady trees cover him with their shadows, the willows of the brook compass him about;" "Behold, he drinketh up a river, he trustoth that he can draw up Jordan into his mouth."

Although the researches of geologists have put it beyond doubt, that, at a remote period of the world's history, the hippopotamus was common to Europe and Asia, it is now found only in Africa, and there not universally; with the exception of the Nile, none of the rivers that fall into the Mediterranean producing it. He is a shy brute, and retreats rapidly before civilization; indeed, it is only in the large and solitary rivers and lakes, running from the confines of the Cape Colony, to about the twenty-third degree of north latitude, that the hippopotamus is found at home and at his ease.

And no beast of the field can boast of a home so vastly grand and 'eautiful; great silent lakes spread out on every side, with fairy islands lotting between-islands, jutting green from the transparent water and studded with the date, the black-stemmed mimosa, the wild widespreading sycamore, the elegant mshoma, and other great straggling ragged fruit-bearers, the yellow, and scarlet, and pearly-white fruit, flickering and flashing in the sun, like coloured lamps, and the wonderful fan palm, each leaf of which is as delicate and daintilyshaped as a lady's fan, and which bears as fruit mahogany-coloured apples, that have for a core, a round, hard, stony substance, like ivory. Through the rank underwood, glide snakes of all the colours of the rainbow, and lizards, looking like animated masses of jewels. and above these, dart and flutter birds, large and small, some with forked tails, and some with crowns, some vermilion, and some the colour of flame. Fancy camping and passing the night in such a solitude ! Livingstone has done so many a time, and the effect was not lost on that observant traveller : he says, "We were close to the reeds and could listen to the strange sounds which we often heard there. By dav I had seen water snakes putting up their heads and swimming about. There were great numbers of others which had made little spoors all over the plains, in search of the fishes among the tall grass of these flooded prairies; curious birds, too, jerked and wriggled amongst these reedy masses, and we heard human-like voices, and unearthly sounds, with splash, juggle, jup, as if rare fun were going on in their uncouth haunts."

The Hippopotami at the Zoological Gardens, Regent's Park, are fine specimens. The larger of the two was shipped during its infancy, subsisting during its voyage to England on the milk of two cows and three goats. This, however, was soon found to be insufficient, so a few quarts of Indian meal were thrown in. By degrees he was "weaned," and vegetable diet supplied him instead of milk. At the present time its allowance is one hundredweight daily of hay, corn, bran, mangelwurzel, and white cabbage; and during the ten years he has honoured this country by his patronage, he has increased in weight more than a im. Burckhardt says, that in parts of Nubia it is a terrible plague to the native farmer, remaining in the water all day, and stealing at night



HIPPOPOIAMUS IN RICE FILLDS

into the grain fields, eating enormous quantities, and spoiling as much more by the treading of its great feet.

Hippopotami are commonly found in families of from ten to thirty. Cumming once had a prime opportunity of observing an entire colony of these animals on the banks of the Limpopo. "Presently in a broad and deeply shaded pool of the river we heard the sea-cows bellowing, and on approaching somewhat nearer, beheld a wonderful On a sandy promontory of the island, stooa and interesting sight. about thirty cows and calves, whilst in the pool opposite, and a little below them, stood about twenty more sea-cows, with their heads and backs above water. About fifty yards further down the river, again shewing out their heads, were eight or ten immense fellows, which I think were all bulls, and about a hundred yards below these, in the middle of the stream, stood another herd of eight or ten cows with calves, and two large bulls. The sea-cows lay close together, like pigs, and as they sprawl in the mire, have not the least objection to their neighbours pillowing their heads on their back and sides."

They always choose a convenient landing-place, one where the bank has a long and easy incline, and this they use till they have caten up all the provender which lies in that vicinity. Before going ashore they watch for an hour, and sometimes two hours near the landing, remaining quiet themselves, and listening for danger. The slightest token of the hunter's presence, on such occasions, sends them away for that night. If no danger appears, they begin to wander ashore in twos and threes. By the by, when Du Chaillu was in Equatorial Africa, he observed a peculiarity of this brute never before recorded. "After watching," says he, "for a great many times the movements of the hippopotamus, I became assured that the huge crooked tusks, which give its mouth so savage an appearance, are designed chiefly to hook up the long river-grasses, on which these animals feed in great part. Often I have seen one descend to the bottom, remain a few minutes, and reappear with its tusks strung with grass, which was then leisurely chewed up."

It has been asserted of the hippopotamus that he is even more stupid than the pig, but the reports of modern and trustworthy explorers decidedly negative the assertion. The reader may please himself about pinning his faith to that great marvel-monger, Pliny, who tells us that, "the cunning and dexterity of this beast is so great, that he will walk backwards in order to mislead his enemy." The hippopotamus, perhaps, in these go-a-head times is too enlightened to indulge in this artful though non-progressive habit,---at least he has not been observed at the trick latterly. They are, however, wonderfully keen in scenting a trap, and will pause at the brink of the most naturally covered pit, grunt knowingly, and walk round it. The "spoor" of a man discovered in their regular paths, is enough to rouse the suspicions of all the mother hippopotami of the neighbourhood, and taking their young ones, they emigrate-several miles sometimes - to safer quarters. Nor will it in a hurry return to a pool that has once been approached by its terrible enemy, man. "When once a hippopotamus has been surprised in its watery dwelling," says Dr. Andrew Smith, "it will rarely be guilty of the same indiscretion a second time; and although its haunts may not again be approached by hunters till after a long period has elapsed, it will survey such approaches, and perform the movements necessary for its respiration with a degree of caution which clearly shows that it has not

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forgotten the misfortunes to which an opposite course had exposed it."

One may easily imagine how one of these enormous brutes, arriving suddenly on the spoor of the hunter, would be affected; how his

prominent eves would protrude farther than ever. and his mite of a tail stick out as he regarded the mysterious dent in the soft earth, and sniffing it with his keen nose, discovered that it had been made by an animal. What sort of I fancy I see animal? Hippo turning the question over in his thick head, till it gradually dawns on him that some time ago a friend of his. rassing along a path, met with sudden death through a tremendous spear set beam that descended and smote him through the loins; and that, visiting the spot shortly afterwards. these same singular footmarks were clearly visible. mixed with those of the stricken animal, and existing beyond the spot where



A STALLLING IMIRISSION

the pool of blood and the mangled carcase were. Crusoe's consternation on discovering traces of another foot besides his own can scarcely be compared with it.



HOW THE HIPPOPOTAMUS IS TRAPPED AND HUNTED.

THE pursuit of hippopotami by the African savage, clearly demonstrates the ability of man to "hold dominion over the beasts of the field" by his own right, and without the aid and assistance of civilization. The bones of mighty behemoth, "like bars of iron," his stubborn hide and terrible jaws, are no match against reason. The savage Bayeye wants the amphibious giant for his meat, and have him he must.

The nature of the beast, however, renders his capture doubly difficult. On land the intrepid savage may approach nigh enough to spit it with his weak javelin, but should Behemoth take to the water, he no more minds the patter against his tough hide of a score of light spears launched from the distant shore, than we should object to be out in a shower of rain. Neither has he great fear of the savage in his cance, for, as well as an easy swimmer, he is an expert diver, and has only to make a plunge, and then, just in the nick of time, to rise beneath one of the cockle-shell things, to send it and the panic-stricken paddlers spinning in the air, and, waiting for them to come down again, bite them in halves between his big jaws.

Still have him the Bayeye must, and this in the face of those serious difficulties, his fragile cance, and his useless, soft-headed spear. But invention may be born of savage necessity as well as civilized, as in this case is amply proved; firstly, the Bayeye constructs a wonderfully elever harpoon.



The shaft of this weapon is about twelve feet long, at one end of it a socket is made, and into this socket is inserted the terrible combination of spear and fish-hook, made of iron and filed to needle sharpness. To the shank of this harpoon, above the barb, a hank of cord is loosely attached, and the other end of the cord is bound round the wooden handle, at about a third of its length; at the extremity of the handle is the harpoon line, long and strong, and terminating with a "float," so that should the stricken beast make a rush and dive so suddenly as to draw the line from the hands of the harpooner, it may be followed by means of the float and recovered. The object of attaching the barb to the handle by a hank of fine cords rather than by one stout one, is, that should the wounded beast turn and bite at it, its chance of severance would be considerably lessened.

Secondly, for reasons already given, some other floating machine than a canoe is necessary, not only to the lives of the hunters, but to the success of the hunt, for the broad flat blades of the paddles fall "pat" on the water, and the little stiff ears of the hippopotamus are very keen, and the approaching canoe would scatter an entire herd long before it came in sight. To obviate this difficulty the ingenuity of the Bayeye is brought into play in an admirable manner. Reeds of the various species of palmyra, which in these regions grow in abundance, are cut off close to the surface of the water, and laid in a square bed, across and across, until the pile is sufficiently buoyant to bear a weight of several tons. In the centre of this reed raft is fixed a tall pole and to this is attached a rope, and when the voyagers wish to land one of them swims ashore, carrying the other end of the rope with him, and hauls the party in. Several disadvantages belong to this primitive construction; capable of going only with the current, it is not the least use trying to control it, and as the undermost reeds get filled with water, and the air in them is excluded, it is necessary to pile fresh reeds on the top. But then in hippopotamus warfare, the reed-raft possesses these two manifest advantages; it glides down the stream in a perfectly noiseless manner, and the wary hunters take care to crouch down amongst the green heap, with the sight of which the brute "that lieth down in the covert of the reeds and fens" is familiar, and allows to approach near to him without the least suspicion; then again, should the wounded beast charge the infirm platform, he simply knocks a bit out of it, and there is little or no harm done.

Suppose, then, the green-raft prepared and the harpoons sharpened, the lines greased, each man armed with a sheaf of light spears, and everything in readiness. Then, in a quiet part of the stream, under the shade of a big tree, the sable huntsmen assemble to the number perhaps of eight or ten. A cance will be wanted by and by, so one furnished with paddles is hoisted on to the raft, which is pushed off from the bank, and with the current, and at the leisurely rate of about two miles an hour, the voyage is commenced. There is no need of caution at present, for the game is known to be yet several miles down stream, so the free-limbed savages recline on the cool stage, and laugh and chat and tell stories according to their wild nature. Gradually, however, the laughter and chat subsides, what is necessary to be said is uttered in whispers, the harpooners take their weapons on their knees, and those whose business it is to manage the cance station themselves about it.

Now a sound of heavy bodies cleaving the water, and deep snorting and blowing comes faintly with the breeze, and the black hunters grouch lower on their green raft, and watch eagerly the bend in the stream that hides the great game from view. Now the bend is passed, and there disport the monstrous hippopotami—a dozen of them—some spouting jets of water from their capacious nostrils; some passive, and with their ugly snouts still, above the surface, looking like the water-washed peak of a hidden rock; others sprawling on the muddy bank, heads and shoulders alone in sight, or clear of the water entirely and comfortably prostrate on the ooze. On glides the raft, the upright reeds shivering through contact with the tremulous limbs of the eager huntsmen, sheer into the midst of the unsuspicious animals. Presently a huge beast comes lumbering quite up to the side of the raft. Then a harpooner suddenly rearing himself to his full height, for a moment poises his terrible weapon, and then, thud ! and the barbed iron has bitten to its hilt into the creature's flesh.

No more reserve, no more stealth, no more silence; the savage may yell now if he likes, and he *does* like; but not a moment is to be yet lost in idle triumph; besides, to exult at this stage of the business would be premature. The work is not half completed. The stricken beast with a great cry, that at once puts his brethren to flight, sinks like a log to the bottom of the stream, and writhes and rolls, to rid him of the hooked knife in his back; but his struggles are of no avail. His assailants above are liberal with him, otherwise he would either pull one of them down to him, or the harpoon would break through his leathern hide; true, he may succeed in disengaging the iron from its handle, but he thereby not at all improves his condition, for the hank of cord still attaches the harpoon to the pole.

Meanwhile, two or three hunters have launched the canoe, leapt into it, and carrying the end of harpoon line with them, paddled swiftly toward the shore. If everything is favourable, they reach land with the line, which they at once cast once or twice round a tree, and thus bring their game to anchor; if, however, the struggling monster should go madly plunging a contrary way, and so take the line out of their hands, they let it go; and keeping the "float," at the extremity of the line in sight, pull leisurely after it, some paddling, others standing up, and with one of the light spears poised ready for a cast. Presently up comes Behemoth to breathe, and whir! go a shower of spears, deepening the crimson that marks his track; again be plunges, and again after a while rises, that he may invigorate his tortured carcase by a long inspiration; and so the game continues, till he sinks and rises no more; and then the hunters pick up the buoy, and carrying the line ashore, make it fast, and patiently wait till the afternoon, when they know that the river will deliver the treasure into their hands.

The Bayeye has another mode of harpooning the hippopotamus, which, although it does not afford the excitement belonging to the chase, is nearly as successful, and attended with little or no danger to the trapper. The hippopotamus is partial to a stroll in the evening; the road he prefers being a nice quiet gully, with a soft mud floor and tall reeds and grass overhanging either side. Having found a pleasant road, he patronises it and no other; and this the trapper knows, and lays his plans accordingly. He comes in the day time to the giant's promenade, while the giant is unsuspiciously dozing in the mud of a distant river-bank, bringing with him his harpoon and a hank of tough vegetable cord. The harpoon, however, is now in a different setting to what it was when employed on the reed-raft. Instead of a light shaft that a man may easily manage, the harpoon-handle is now six feet of a moderate-sized tree-trunk, cleared of the bark, and made as even as possible. Laden with this cumberous machine, the Bayeye makes his way along the gully till he finds a tree whose boughs conveniently overhang the path-way. Now he sets to work. He finds two heavy stones, and these with a stout bit of rope he attaches to either side of the harpoon-beam. Now he fastens an end of his hank of cord to the butt-end of the beam, and flinging the cord over the stout limb above his head, hauls up the weighted harpoon; then ha drives a stake on one side of the path, makes a single turn with the cord round it, stretches the cord right across the path, drives another stake, and makes the cord fast. Now Behemoth may come as soon as he pleases; as to the trapper he can do no more than climb up into the tree, and there squat and wait. By and by he hears a deep grunting, and peering through the foliage, sees the great beast waddling along in a leisurely manner and thinking of anything in the world but "trap." On he comes, lifting his stumpy legs scarcely an inch from the ground, till a huge fore paw encounters the string across the path-way; the slight stakes are dislodged, the cord released, and down rattles the weighted beam, and the barbed iron has anchored in the poor brute's back. It does not kill him

Instantly. With a great roar of rage and agony, he turns and

for the river with the horrid beam riding on his back, the heavy stones swaying to and fro and deepening the wound. There is no escape for him : he may gain the water and blunder along a mile or so, but so surely as the morning comes, the trapper will take a walk along the shore, and .nere spy his mighty game dead, and floating with the stream, harmless as a log.

The invention of the rifle has divested hippopotamus chasing of the ingredient most attractive to the hunter-danger. Armed with a first-rate gun, and with ability to use it properly, the hippopotanus may be as easily butchered in his native haunts as an ox in the city shambles. Accidents may however happen, or the hunter be sufficiently ingenious and persevering to raise an exciting scene out of even such tame materials. A highly successful pursuer of this huge game thus relates a rather singular exploit :---

"I rode down the river bank with two after-riders, to seek hippopotami, the natives reporting that they were to be found in a pool in advance. After riding a short distance, I found the banks peculiarly green and



THE DOWNFALL

shady, and very much frequented by the sea-cow, and presently ir a broad, still bend of the river, I disturbed the game I sought.

"They were lying in their sandy beds among the rank reeds at the river's margin, and on hearing me galloping over the gravelly shingle between the bank and the reeds, they plunged into the water in great alarm, and commenced blowing, snorting, and uttering a sound very similar to that made by the musical instrument called a serpent. It was a fairish place for attack; so divesting myself of my leather trousers, I crept cautiously forward, determined not to fire a shot until I had thoroughly overhauled the herd, to see if it did not contain a bull; and at all events to secure, if possible, the very finest head amongst them.

"The herd consisted of about fourteen hippopotami; ten of these were a little farther down the stream than the other four. Having carefully examined these ten, I made out two particular ones, decidedly larger than the others. I then crept a little distance up the river behind the reeds, to obtain a view of the others. They were two enormous old cows, with two large calves beside them; I chose what I thought to be the best of these two, and making a fine shot at the side of her head, at once disabled her. She disappeared for a few seconds, and then came floundering to the surface, and continued swimming round and round, sometimes diving, and then reappearing with a loud splash, and a blowing noise; always getting **slowly down** the river, until I reattacked and finished her a quarter of a mile farther down, about an hour after.

"The other sea-cows were now greatly alarmed, and only occasionally put up their heads, showing but a small part, and remaining but a few seconds at a time. I, however, managed to select one of the three remaining ones, and making a most perfect shot, I sent a bullet crashing into her brain. This caused instantaneous death, and she sank to the bottom. I then wounded two more sea-cows in the head, both of which I lost: the others were so alarmed and cunning, that it was impossible to do anything with them.

"The one I had first shot was now resting with half her body above the water; but from this resting-place I at once started her with a shot in the shoulder, and another in the side of the head; the last shot set her in motion once more, and she commenced struggling in the water in the most extraordinary manner, dispearing for a few seconds, and then coming up like a great whale, setting the whole river in an uproar. Presently she took away down stream, holding to the other side; but again returning, I finished her with a shot in the middle of the forehead. She was a magnificent specimen of sea-cow, and was altogether more lively and interesting than certain writers had led me to expect.

"On securing the she hippopotamus, I immediately cut off her head, and placed it high and dry; this was a work of considerable difficulty for four men. We left her body in the water, being of course quite unable to do anything with it there. It was well I secured the head when I did, for next morning the crocodiles had dragged the carcase away."

Among the thousand and one marvellous feats of hunting described by Mr. Cumming, as belonging to his five years' South African experiences, is this one concerning a hippopotamus; and only that it is tainted with a certain amount of wanton cruelty, may rank amongst the most stirring narratives of hippopotami chase:—

"Just as the sun went down I entered a dense reed cover, and came upon the fresh lairs of four hippopotami. They had been lying sleeping on the margin of the river, and as they heard me come crackling through the reeds, had plunged into the deep water. I at once ascertained that they were newly started, for the froth and bubbles were still on the spot where they had plunged in. Next moment I heard them blowing a little way down the river. I then headed them, and with considerable difficulty, owing to the cover of the reeds, I at length came right down above where they were standing. It was a broad part of the river, with a sandy bottom, and the water came half-way up their sides. There were four of them—three cows and an old bull. They stood in the middle of the river; and though alarmed, did not appear to know the extent of the impending danger.

"I took the sea-cow next to mo. and with the first ball gave her a mortal wound, knocking loose a great plate on the top of her skull. She at once commenced plunging round and round, and then occasionally remained sitting for a few moments on the same spot. On hearing the report of my rifle, two of the others took up stream, and the fourth dashed down the river. They trotted along, like oxen, at a smart pace of long as the water was shallow. I was now in a state of very great anxiety about my wounded sea-cow, for I feared that she would get down into deep water, and be lost; her struggles were only carrying her further down the stream, and the water was becoming deeper. To settle the matter I accordingly fired a second shot from the bank, which entering the roof of the skull, passed out through her eye. She then kept continually splashing round and round in a circle in the middle of the river. I had great fear of crocodiles, and I did not know that the sea-cow might not attack me. My anxiety to secure her, however, overcome all hesitation; so divesting myself of my leathers, and armed with a sharp knife, I darted into the water, which at first took me up to my arm-pits, but in the middle became shallower.

"As I approached Behemoth her eye looked very wicked. I halted for a moment, ready to dive under the water if she attacked me; but she was stunned, and did not know what she was doing, so running in upon her, and seizing her short tail, I attempted to incline her course to land. It was extraordinary what strength she still possessed. I could not guide her in the slightest, and she continued to splash and blow, and made her circular course, carrying me with her as though I had been a fly on her tail.

"Finding that her tail gave me but a poor hold, as the only means of securing my prey, I took out my knife, and cutting two deep parallel incisions through the skin on her rump, and lifting this skin from the flesh, so that I could get in my two hands, I made use of this as a handle; and after some desperate hard work, sometimes pushing and sometimes pulling, the sea-cow still continuing her circular course all the time, and I holding on like grim death, eventually I succeeded in bringing her to the bank. Here the Bushman quickly brought a stout buffalo-rein from my horse's back, which I passed through the opening in the thick skin, and moored Behemoth to a tree. Then I took my rifle, and sent a ball through the centre of her head, and she was numbered with the dead."

Considerable doubt having been expressed as to Mr. Cumming's correct estimation of the number of hippopotami encountered by him, it is but fair to state the most recent African explorer, Mr. du Chaillu, reports them[®]as equally abundant in the regions visited by him. At a place called Biango, Chaillu assailed a "school" of hippopotami noundering in a shallow river, and shot five of them. It is found, he says, in greatest abundance south of the equator, and in the interior, and expresses perfect confidence that in the far and as yet unexplored interior they are more numerous still.



HIPPOPOTAMUS' SPOOR

DAVID LIVINGSTONE.

THE subject of this memoir may be aptly quoted as an example of what may be achieved by self-denial and steady determination. They who knew young David Livingstone, who toiled early and late as "piecer" in a cotton-mill in the neighbourhood of Glasgow, and whose father was the proprietor of a little grocer's shop, could never have imagined that they should one day see him ranked among the few great ones who, unaided, lift themselves high above common men; not that David's father was a common man, for, according to his son, "he had too honest a conscience to become rich;" which one may fairly assume to allude to the absence of adulteration from the good man's groceries.

At a very early age he displayed a great taste for works on science and religion, and prepared in such good earnest to master the grand old Latin language, that by the time he had completed his sixteenth year he was tolerably well acquainted with Virgil and Horace, and other Latin authors. Not only were all his spare hours devoted to reading, but even at work he would place his book on the spinning-jenny, and catch a sentence every now and then in the course of his labour. When he was nineteen, he was promoted to a cotton-spinner, and with the fruit of this laborious, but well-paid work, he attended Greek and medical classes, and, in the winter, divinity lectures. About this time the idea of a missionary life occurred to him, and his hopes were fixed on obtaining a good medical education, and so to qualify himself as a candidate for missionary duties. China was the field he had in view, but, the war breaking out, he was doomed to disappointment. IIe, however, about that time, became acquainted with Mr. Moffat, who had spent a considerable time in Africa, in the capacity of a missionary. and was by that gentleman persuaded to give his services to the mission cause in that country. In 1840 he embarked for the vast and unexplored continent of Africa. and remained there sixteen years. The result of those years of exploring and missionary enterprise is well known. In 1857 he published his "Missionary Travels in Africa," a work which was hailed with universal satisfaction, as well for its literary merit as for its intense interest and abundance of rare and valuable information. We cannot pay him a greater compliment than to say that this part of his life is every way worthy of the man of such a boyhood. All the essential qualities of a great traveller he seems to possess : industry, perseverance, an indomitable will, and a large share of self-esteem, which, by the by, must be an invaluable ingredient in the composition of a sojourner among savages. On the 10th of March, 1858, Mr. Livingstone once more set out on his Christian pilgrimage. amply provided by the Government with a valuable cargo and every possible requisite. Before he started he had a private interview with the Queen, and was thereby enabled to bear direct from royal lips, messages of peace and goodwill to me many savage and ignorant monarchs of Africa it may be his lot to visit.

HABITAT OF THE LEOPARD.

THIS animal, although little more than half the size of the

He Maline tiger, is scarcely less feared by the natives of those countries where it is found; and not without reason. In the case of the tiger, you may be sure, so long as you keep well away from way-side banks and bushy hillocks, that you have at least the advantage of standing above your enemy; but in leopard chase, the hunter is deprived of this The animal may be lurking among the tall rank herbage advantage. that brushes your elbow as you struggle through it, or it may be lurking overhead sprawled along the forked limbs of a big tree, and only waiting for your back to be turned to leap on you and drink up your blood with the horrid greed peculiar to animals so thirsty.

There is not a more wary or cunning beast than the leopard among the entire family of carnivora. He will take up his position near a village and there make his lair. This, however, is not the village he intends to make his hunting-ground. He will indeed pass stealthily
through it in the night, and harm neither dog, horse, nor other animal he may encounter; on he speeds through the village so near *home* to the next village, that is, perhaps, five or six miles distant. Here he may take his supper with impunity, and with little fear that the bereaved farmer will dream of hunting him through the village *leyond* that which he—the marauder—has visited. The natives at the Cape assert that the leopard has a habit of lying on the ground, concealed among the long grass and branches, and twisting itself about so as to attract the attention of any of the deer tribe that may happen to be near. The prying propensities of deer are well known. Observing the unusual commotion among the grass, the silly animal stalks up to see; but what he *does* see is a secret known only to himself. He never returns to his companions to discuss the curious discovery.

While in pursuit of its prey on terra firma, it crouches with its fore-paws stretched out, and its spring-like hind legs doubled under, and with its head flat to the ground-exactly as one sees one's familiar grimalkin gliding over a lawn in quest of pigeons and sparrows. He is not at all particular in his diet,-a circumstance better known than esteemed by the unfortunate native who owns a farm in the neighbourhood of a leopard's haunt. Once on the premises, he will take something, a young calf or a lamb if convenient, if not, a few fowls; if these latter are safely put up, and no living thing but the watch-dogs are about, let them look out, or one of them will presently feel the leopard's tenacious claws in his neck, and be hauled off. While travelling in South-Western Africa, Mr. Andersson experienced the truth of this latter observation. He says : "One night I was suddenly awoke by the furious barking of our dogs, accompanied by cries of distress. Suspecting that some beast of prey had seized upon one of them, I leaped, undressed, out of my bed, and gun in hand hurried to the spot whence the cries proceeded. The night was pitchy dark, however, and I could distinguish nothing. In a few moments a torch was lighted, and we discerned the tracks of a leopard and also large patches of blood. On counting the dogs, I found that 'Summer,' the best and fleetest of our kennel, was missing. As it was in vin that I called and searched for him, I concluded that the leopard had carried him away. Presently, however, a melancholy cry was heard in the distance, and on following the sound. I discovered "Summer' stretched at full length in the middle of a lush. Though the poor creature had several deep wounds about his throat and chest, he at once recognised me, and wagging his tail looked wistfully in my face. I carried him home, where in time he recovered. 'Summer,' however, was speedily revenged, for baulked of dog, the leopard the next morning made a bold dash at a flock of goats; but being perceived by the herdsman, took refuge in a tree, nor would he quit it till, riddled with bullets and poisoned arrows, he fell dead to the ground."

In Ceylon, the natives have a superstition (shared in many instances by the European residents) that when a bullock or other beast is killed by a leopard, and in expiring falls so that its right side is undermost, the leopard will not return to devour it. So persistent are the natives in this belief, that when European sportsmen have prepared to watch by the carcase of a bullock recently killed in the hope of shooting the spoiler on his return in search of his prey, the owner of the slaughtered animal, though burning to be revenged, would not for a moment entertain the proposition if the carcase were discovered in the position above described. Tennent speaks of a perfectly black leopard found in Ceylon, and further mentions a singular fact in connexion with the leopard generally. He says, " Leopards are strongly attracted by the smell which accompanies smallpox. The reluctance of the natives to submit either themselves or their children to vaccination exposes the infant population to frightful visitations of this discase, and in the villages in the interior, it is usual on such occasions to crect huts in the jungle, to serve as temporary hospitals. Towards these the leopards are certain to be allured, and the medical officers are obliged to resort to increased precautions in consequence."

Among the natives of Central Africa, the leopard is even more dreaded than the terrible gorilla; for though the latter is more than a match for this cunning spotted cat, it possesses none of those *lurking* propensities that make all the carnivora such formidable antagonists to man; therefore, when a leopard is hunted and slain in the region above mentioned, great is the rejoicing among the tribe to which the lucky hunter belongs. It is not, however, strictly on account of the dangerous animal's destruction that so much delight is manifested. True, it is something for these forest-dwellers to lessen the chances of sudden death, by the extermination of a single fang and talon-bearing beast; but, after all, it is an insignificant matter compared with the *charms* secured by laying the leopard low. Take the following circumstance related by Mr. Du Chaillu as an example of the Africans' superstition concerning the animal in question :---

Having returned from a successful leopard hunt, "the men painted themselves, and sang songs over the beast till I made them go to sleep, which was not till towards morning. They danced, they sang songs of victory, they abused and exulted over the deceased leopard, they addressed comical compliments to its beauty—and it is really a most beautiful animal,—they shouted, 'now you will kill no more people!' 'now you will eat no more hunters!' 'now you cannot leap at your prey!' and so on, till the mummery grew past laughing at.

"The next morning, however, I first learned the full extent of their rejoicing, and the great importance attached to the killing of this feared beast. I was drawn to where we had suspended the body to keep the ants from it, by a noise of angry quarrelling, and found Niomkala asserting his determination to have the end of the leopard's tail, while the rest of the hunters were all asserting equal right to it; and the non-combatants, the bearers of our luggage, looked on in envious silence, evidently wishing they also could put in a claim. On inquiry, I found that the fortunate possessor of the end of a leopard's tail was sure to be kindly regarded by the women, and could, in virtue of this powerful charm, win as many hearts as he might desire.

"Laughing at them, I reserved the desired tail for him among them who should behave best, and I thought I had settled the quarrel. But now came a fresh division; Aboko, Niomkala, and Fasico each wanted the whole brain of the animal. For a few minutes a fight seemed imminent on this head, which seemed even more strenuously disputed than the other. I discovered that the brain, if properly dried and mixed with some other charm called *monda*, and the nature of which I could not understand, gave its possessor dauntless courage and great fortune in the hunt; and I was so happy as to persuade my three hunters—who really needed no such amulet to patch up their courage—that a part was in this case as good as the whole.

"This settled, I found that the liver was laid before me; as this had no interest for me, I was going to kick it aside and walk off but was-stopped and entreated to take off the gall and myself destroy it. This was to be done to save the whole party from future trouble. It appears that the negroes believe the gall of the loopard to be deadly poison, and my men feared to be suspected of having concealed some of this poison by their friends or enemies. To settle which beforehand I was now desired to destroy it, and afterwards to bear witness for them, if by chance they were accused of poisoning."



The leopard's skin is highly valued by the Singhalese, who have a more expeditious and safe method of taking the animal than hunting him. A cage is formed by driving poles firmly into the ground, there is a door to the cage which is held open by a sapling, bent down by the united force of several men, and so arranged to act as a spring, to which a noose is ingeniously attached, formed of plaited deer-hide; a young goat is tethered within the cage, and a stone tied to his eau to make him cry continuously. The noise attracts the leopards, one of which, being tempted to enter, is inclosed by the liberation of the spring, and grasped firmly round the body by the noose.

Like most of the carnivora, they never intrude on man voluntarily, and always retreat when he approaches. Major Skinner, in one of his letters, tells a story that forcibly illustrates man's dominion over all other animals. The Major was engaged in the prosecution of his military reconnaissances. "Anxious to gain a height in time to avail myself of the clear atmosphere of sunrise for my observations, J

started off by myself through the jungle, leaving orders for the men with my surveying instruments to follow my track by the notches which I cut in the bark of the trees. On leaving the plain, I availed myself of a fine wide game track which lay in my direction, and had gone perhaps half a mile from the camp, when I was startled by a slight rustling to my right, and in another instant by the spring of a magnificent leopard, which, in a bound of full eight feet in height over the lower brushwood, lighted at my feet, within eighteen inches of the spot where I stood, and lay in a crouching position, his fiery, gleaming eyes fixed on me. The predicament was not a pleasant one. I had no weapon of defence, and with one spring, or one blow of his paw, the beast could have annihilated me. To move would, I knew, only encourage his attack. It recurred to me at the moment that I had heard of the power of man's eyes over wild animals, and accordingly I fixed my gaze, as intently as the agitation of such a moment enabled me, on his eyes. We stared at each other for some seconds, when, to my inexpressible joy, the beast turned and bounded down the straight open path before me. This scene occurred just at that period of the morning when the grazing animals retired from the open pasture to the cool shade of the forest; doubtless, the leopard had taken my approach for that of a deer or some such animal, and if his spring had been at a quadruped instead of a biped, his distance was so well measured that it must have landed him on the neck of a deer, an elk, or a buffalo; as it was, one pace more would have done for me. A bear would not have let his victim off so easily."

Instances, however, have occurred of individuals having been slain by them. Tennent relates that a peon on night duty at the courthouse at Quarajapoora was carried off by a leopard from a table in the verandah, on which he had laid down his head to sleep.

A remarkable instance of the inability of the cat tribe, while in a wild state, to tolerate the gaze of man is related by Captain Drayson. "While sojourning a few miles from Natal, a leopard took up his quarters in the neighbourhood, and regularly as night came paid a visit to a farm, varying his thefts according to his opportunity or appetite. To-night a watch-dog would be missing, to-morrow night a few head of poultry, the next night a porker, and so on. To support a leopard with so promiscuous and extravagant an appetite was rather unsatisfactory. So the combined intellect of three individuals plotted a trap for this robber, and an old hen was the bait. The ordinary mouse-trap principle had been adopted, and the top of the cage secured by planks, on each end of which iron half-hundred weights were placed. The leopard was too cunning on the first occasion to touch the hen; but a few nights afterwards he came again, seized the fowl, and became a prisoner. I was told that when first trapped he was furious, and made the most frantic efforts to escape, trying, but vainly, to force the stakes asunder. Upon the appearance of a man he became sullen and quiet, and slunk growling to the corner of his cage.

"I visited him the morning after his capture, and was received with the most villanous grins and looks. He could not endure being stared at, and tried every plan to hide his eyes so that he need not see his persecutor. When every other plan failed, he would pretend to be looking at some distant object, as though he did not notice his enemy close to him. When I gazed steadily at him he could not keep up this acting for longer than a minute, when he would suddenly turn and rush at me until he dashed himself against the burs, and found that he was powerless to revenge himself."



The cheetah, or hunting leopard, is rarely found out of India. It is common with the European inhabitants of Ceylon[®] to style the leopard "cheetah," but the true breed of this animal does not there

exist; indeed, in Africa it is so rare that, except by its skin on the shoulders of a Kaffir chief, its existence is seldom indicated. The cheetah is not so large as the leopard, and not nearly so handsome. It is much more tractable than the last mentioned animal, and allows itself to be instructed in the art of hunting deer. The hunter sets out with his cheetah in a sort of tumbrel, drawn by a horse, and accompanied by his gun-bearers and beaters; when a deer is started, the cheetah is loosed and gives chase. The speed of the deer exceeds that of the cheetah, but as soon as the former becomes aware of its terrible pursuer, it becomes panic-stricken, and its swift and regular pace changes to spasmodic loaping and stumbling; while the horrible cheetah, eager for the sanguinary reward for his service, increases his speed, and is presently on the back of the struggling deer, with his teeth in its throat, and there he remains, enjoying his crimson draught, till the huntsmen come up, and he is beaten off the venison and secured.

"It is hard," writes a sturdy old Nimrod, "to conceive a system of hunting so thoroughly un-English and unsportsmanlike as the above. Explorers of the far regions of Southern Africa tell of a race of savages who obtain their meat by robbing the lion and other mighty beasts of their prey. They-the savages-lie in wait at the tanks and waterholes, where at night all animals, gentle and fierce, come to drink, and where the lion and the leopard get their food as well as water. Should the lion strike down an antelope or buffalo, the savages rush out with blazing brands, and uttering their loudest yells drive the king of the forest from his supper, and devour it themselves. These lion-robbers, however, do not stand in high esteem among their brethren of the bow and assagai; by these latter the practice is looked on as thievish, and -a thing of much more serious import among these free-livers-mean and cowardly. In justification of the savage, it may, however, at least be said that his proceedings are not entirely free from danger; the lion may turn on the robbers, and if he does, unarmed as they are, at least one will feel the weight of his fore-paw; but the civilized hunter, who smokes his cheroot, and having seen the attendants slip the chectah, calmly abides the result, confident that the brute's cruel fangs will win the fight, has no such excuse. Such 'hunting' may be performed in white kid gloves, and is certainly more worthy the patronage of a pack of blood-thirsty old women, than of bold and featless sportsmen."

The hunting leopard, according to a reliable authority, stands some thirty-two inches high, and is of the genus *caius*, not having the retractile claws of the cat. He is much lighter made than the panther, shows little fight with the dogs, and is not commonly found in the jungles, because he lives much in the lower branches of large foresttrees, where the female brings forth her young; and preys upon the goat, antelope, and all kinds of small deer, and also on pea-fowl. Whether the cheetah is taken as a cub and reared to the business of hunting, or whether a full-grown animal may be trapped and broken in, I have not been able to discover. The natural supposition, however, is that the former course must be adopted, for although we have instances of panthers, &c. becoming sufficiently docile to tolerate man's society, the greatest care is taken that they in no way indulge their savage and natural appetites.





THE MOROCCO LEOPARD.

HOW THE LEOPARD IS HUNTED.

LEOPARD stories are scarce, and among the best I am acquainted with, is one that was related to Captain Drayson by one of his hunting gang, a Boer named Hendrick. The captain speaks of Hendrick as a honest, straightforward fellow, and moreover examined the terrible scars about the man's body.

Hendrick was staying at the house of a neighbour, whose daughter he was in love with. One night, a leopard broke into the yard, and finding nothing more substantial, killed and devoured many head of poultry. Having once so delicately supped, there was little doubt that the leopard would shortly try his luck again,—a reflection that caused much dismay among the household. Hendrick, however, being a bold young man and a tolerable shot, and being anxious, moreover, to distinguish himself in the eyes of his affianced, secretly resolved to visit a "kloof" about four miles distant, where the leopard was probably in hiding, slay the beast, and bring in his skin in triumph.

Setting out at day-break, and armed with a single-barrelled gun, Hendrick dismounted, entered the ravine, and commenced hunting for "spoor." After a while he discovered the remains of a buck partly eaten, and knew at once that it must be the leopard's work, because there was evidence of the animal's having been pulled down by the throat, whereas, if it had succumbed to a hyæna or a wolf, the flanks would have been mangled; while engaged examining the venison, he looked up, and there, just over his head and clinging to a great bough, was the animal of whom he was in quest, showing its teeth and glaring viciously. Quick as lightning the leopard leapt down and made off, though not before Hendrick had raised his gun and sent a bullet after it. A sudden cry and a twist of the body announced that the bullet was properly billetted, but still the leopard kept on, and the young man, mounting his horse, gave chase. Hunted and hunter soon came to a denser ravine than the first, and the leopard escaped from Hendrick himself shall relate the rest of the story. view.

"Leaving my horse outside, I went into the ravine on the spoor, which I had great difficulty in following, as the briars and wait-a-bit thorns were troublesome to push through. After a little while, however, I saw some blood and could get on better. I held my gun ready for a shot, and felt that my knife was loose in the sheath. When I came nearly to the bottom of the ravine, I suddenly saw close to me the wounded leopard; he did not run away this time, but crouched down and spit at me like a spiteful cat, laying his cars back and showing his teeth. I fired straight at him, and must have hit him, but he still did not move for about an instant. Then, with a bound, he came close to me, and just as I was about to draw my knife sprung on me, at the same time seizing the arm with which I tried to keep him off, and fixing his claws in my shoulders. The pain was so great that I shrieked out; but there was no one within five miles to help me, and I knew that I must fight the battle myself for my life. My right arm being free, I plunged my long knife into the brute's stomach and ripped him up to the chest, giving him one or two digs behind the shoulder, which must have found his heart, as he suddenly relaxed his hold and fell from me The flesh on my thigh was badly torn, as he had fixed his hind legs there and scratched me, as I have seen two kittens do to each other at play. The struggle was all over in a few seconds, but I had been knocked down, torn, and my

arm broken during the time. I tried to get up, but felt giddy and queer, and fell back insensible.

"When I came again to myself it was quite dark. I was in great agony, and felt dreadfully thirsty; and though I could hear the rippling of water a few yards distant, could not move. The only chance of any one coming to my aid seemed to be that my pony would go home when he found that I did not return to him; and that, thinking something was wrong, some one might spoor me to where I lay. I had several times tried to move; but the attempts caused me much pain, and I couldn't stir an inch. Once or twice I thought I felt against my shoulder a movement as of something crawling.



"A long time seemed to pass before the daylight came; I lay almost fainting and stupid from the pain and cold, but at last determined to try and load my gun. I turned my head with difficulty, and looked down for my weapen and powder-horn. As I looked at my broken arm which was lying useless beside me, I saw a great brown-looking thing lying over it—it was a hideous puff-adder, that had crept to me for the sake of warmth, and had been my companion for hours. I kept my eyes on him, and could see a slight muscular motion in his body every now and then, like breathing; the idea came across me that he had already bitten me, and was drinking my blood. At last, the joyful sound of voices came upon my ear; but I dared not answer, lest the movement made in so doing might enrage the adder. As the footsteps and voices approached, however, the reptile raised his broad head to listen, and then dropped off and glided away in the brushwood; and the party, consisting of my brother and three Hottentots, coming up, I was released from my perilous position and carried home on a litter of boughs."

While Chaillu was hunting with the Shekiani tribe in Equatorial Africa, he had rather a sudden and exciting introduction to a leopard. Buffalo was the game the explorer and his party had in view, and having stalked a herd, Chaillu was about to fire at a fine bull, when one of his men made a sign for him to pause and listen. "As we stood perfectly motionless, I heard, at apparently a little distance before us, a low purring sound, which might have been taken by a careless ear for the sound of the wind passing through the grass But to Aboko's ear it became something else. His face grew very serious, and he whispered to me 'Njego,' which is Shekiani for leopard. The noise continued, and we moved slowly and very cautiously a few steps ahead where we could get a position to see over the grass. The position was not a pleasant one. The leopard comes out generally by night only, and nothing but extreme hunger will tempt him to quit his lair in the open day. Now when he is hungry, he is also unusually savage and quick in his motions. We knew the animal was near, but could not by any means get a sight of him. As the wind blew from it towards us, I perceived plainly a strong and peculiar odour which this animal gives out, and thus proved more decidedly that it could not be far off. The thought passed through my mind-was it watching us ? If so, was it perhaps getting ready to spring ?

"Meantime our buffalo-bull stood stupidly before his herd not twenty yards from us, utterly innocent of the presence of so many of his formidable enemies, and little suspecting the curious circumstances to which he was to owe his life.

"Just then we moved a little to one side, and peering through : n

opening in the grass I beheld an immense leopard, a female, with a tiny little leopardling near her side. The beast saw us at the same moment, turning her head quickly at some slight noise we made. She had been watching the buffalo so intently as not to notice our approach. As I watched her, it seemed to me that a curious look of indecision passed over her face. She, too, had more game than she at first looked for, and was puzzled which to attack first. Her long tail wagged from side to side, and her eyes glared as she sought for a moment for a decision. But I saved her the trouble; for in less time than it takes to write it down, I had put a ball in her head, which luckily for us relieved her of further care for prey. At the same time Aboko fired at the little leopard and killed it."



ASIATIC LPOPARIA



HABITAT OF THE PANTHER.

THE habits of the panther are a good deal like those of the tiger, and though he is not nearly so large as the latter, and of not more than a third its weight, is much more courageous and cunning, and may be classed among the most formidable of the *genus ferox*. The length of the panther seldom exceeds seven and a half feet including the tail. He of India is spotted with rose-shaped spots; the tawny colour of the skin being visible in the centre of the black, and the black only becoming a distinct spot towards the extremities of the animal, and on its back. The favourite resort of the Indian panther is the immediate neighbourhood of a sendbund or date-grove, for there wild hog abounds, and of the flesh of wild hog the panther is particularly fond. As is the case with some other beasts of prey, the skin of the panther fits his body so loosely, that it is little use hunting him with anything but fire-arms: it would be convenient enough to spear him from the saddle as wild boars are speared; but unless the spear is extremely sharp, and the aim exactly true, there is a chance that the weapon will run between the skin and the flesh, only serving to infuriate the animal charging you, and not at all interfering with his murderous designs. "In riding him," says a good authority, "you must be prepared for his suddenly stopping and crouching as the horse comes up to him. If you then fail to spear him through, in all probability he will bound on you when you have passed. His hind legs being the springs, are in this position doubled up ready beneath the animal, and the bound he can take from thus crouching is much farther than from the size of the animal you would think possible."

In Africa two sorts of panthers exist. In colour they are similar; but differ greatly in size; the larger of the two being as big as a Among the Arabs there exists a rather curious legend lioness. respecting the panther. "At the time," say they, "when all animals were endowed with speech, a band of twenty lions approached a forest in which panthers had always reigned supreme. A patriarchal panther was sent out to inquire what the great-maned strangers desired, and was informed that they had taken a fancy to this particular forest, and that they had come to take possession. If the panthers would walk off quietly, no more need be said about it : if not, they, the lions were prepared to fight for it. The indignant panthers were equally ready to fight; and all their big males assembled in battle array. As soon, however, as the twenty lions gave one roar, the scared panthers flew hither and thither; up trees, and into holes and caves, where they have remained hiding from the lions ever since."

One section of Mons. Gerard's wonderful lion book, is devoted to the panther, how to hunt him, and the sort of animal he is to hunt It must be admitted that the gallant hunter's account is by no means satisfactory, inasmuch as he pertinaciously insists, in the face of a host of testimony to the contrary, that the panther is a vile, mean, cowardly thing, afraid of its very shadow; while he does not adduce a single instance in sipport of the assertion. "The panther," says he, "lives upon the animals which it hunts down. He is afraid of leaving the woods even during the night, and if it has been "nable to surprise either a wild boar, a jackal, or a hare, it will put up with a partridge, or a rabbit. As its natural weapons are formidable, and its muscular strength sufficient to enable it to struggle against a man, its cowardice can only be attributed to some defect in its organisation, and which gives it a great resemblance to those men who have the strength of a dray-horse, and the courage of a woman who faints at the sight of a chimney on fire." Did no evidence to the contrary exist, it might be supposed that the Algerine panther is the milksop of his tribe-a mongrel among noble, great-fanged mastiffs; but unfortunately for this supposition, other men beside the lion-slaying Frenchman have been over the same ground, taking careful note of all they heard and saw. For example, Mr. Blakesley says, "On the line from Sidi Bel Abbès to Nulianah, passing through Maskara and Orleansville, is the region of the panthers-an animal which, from its cunning, and power of climbing trees, is much more feared as an adversary than the lion, both by Arabs and Europeans; while its cruelty in slaughtering many more cattle than it devours, renders it a greater pest to the farmer. A young lieutenant of engineers, whom I met on my way from Maskara to Mostaganen, told me that in the part of the country just mentioned, he had often, when out at night, found it prudent to take refuge by the Arab fires, instead of pursuing his journey, in consequence of finding these animals too closely upon his track. The statement surprised me, as I had no idea they ever followed either man or beast by scent, but supposed they lay in wait for their prey, and sprung upon it unawares."

The Arabs, who trade in panthers' skins, have an ingenious way of destroying the animals—a way much safer than hunting them. When the panther hunts down an animal, he will generally return and return again to it till he has eaten up every scrap. When the Arabs find just a little bit left, enough, say, for the panther's lunch, they tie strings to it, and attach the strings to the triggers of several guns, fixed in the surrounding bushes. When the meat is seized, it is ,hard but the panther is either disabled, or wounded to death.

The "pariahs" or homeless and vagabond dogs that swarm at every village throughout India, are the common prey of the panther. It is a popular belief among the natives that the panther cunningly wiles the pariah into his clutches, by lurking behind a wall or bush, on the outskirts of the village, and uttering all sorts of noises likely to attract a hungry and savage dog—the whinnying of a young foal, the bleating of a kid, or the baaing of a calf. Out rush the dogs in a pack, and pouncing on the foremost, the panther carries him off. Indeed the panther seems to be particularly partial to dog flesh, as is corroborated by Lieutenant Rice, in an episode of his hunting adventures, and which at the same time shows the enormous strength of this animal that itself is not more than a third the weight of the tiger.

"At midnight, while, as usual, sleeping out for coolness' sake in the open air, an awful row was suddenly heard in the midst of our encampment. Everybody instantly turned out to ascertain the cause of the disturbance. We soon discovered that a panther had paid us a visit, and after killing a goat in the very midst of our servants and tents, had the audacity to carry off my two large greyhounds. The dogs were coupled together, and tied to a tent-peg at the side of my cot; the panther dragged both these dogs about three hundred yards over and through some terribly dense jungle of high thorn bushes. Guided by the loud cries and barking, we followed as quickly as possible, firing off guns, shouting, and waving lighted brands snatched from the fires around. Soon we came upon the spot where the panther had at last dropped the dogs. One of them was killed, his skull having been smashed in by a blow of the panther's paw, but the other was all right, except the fright she had received. Finding he could not carry off the goat, which was firmly tied up for the night, he had made a snatch at the dogs, and succeeded in up rooting the tent-peg to which they for safety sake were always fastened at night. No doubt he would have been satisfied with one, but was obliged to take both on account of their being linked together. To give some idea of this panther's strength, I may state that these greyhounds had on more than one occasion successfully encountered even full grown wolves."

That the panther's audacity is at least equal to its strength, Lieutenant Rice adds his testimony to that of every other sportsman who has made "game" of the animal in question. While the abovementioned gentleman and his party were halting for the night on the banks of the Chumbul, and had pitched their tent and sat down to dinner, "a great uproar was suddenly heard, which arose from a panther actually having the impudence to carry off Dr. Lord's poor little dog 'Tim,' that was at the time in the same tent with us or close by it. The dog's cries, as the panther took him off past all our servants who were scattered about, gave us the first intimation of what had occurred. Instantly an alarm was raised, while we hastened, firing shots in the air to frighten him. Other men quickly followed with lighted sticks and lanterns. The night was very dark, and the jungle through which the dog was walked off, very dense and thorny; and many bruises occurred to us all, for we had only our drawers and slippers on. At length, after going about four hundred yards, we recovered the body of the dog, which the panther had dropped on being so hotly pursued. It was quite dead, having received a blow of the panther's paw."



PANTHER SPOOR.



PANTHER TRAP

HOW THE PANTHER IS HUNTED.

OF the sanguinary battles that from time to time have taken place between men and savage beasts, few excel in terrible interest those in connexion with the panther of India. Captain Henry Shakespeare, who, for a quarter of a century, waged successful war against the terrible four-footed inhabitants of wood and jungle, knew the panther very well; indeed, to use his own words, it is an animal with which he had sometimes an almost too intimate acquaintance. The brave old hunter does not produce a solitary and well-dressed account to substantiate the above assertion. With simple truthfulness he tells us panther stories—more or less terrible—by the dozen, and from which are selected the following :—

"On the 28th of December, 1858, three of us, being in field service at Simiriah, agreed to go out to shoot pea-fowl. I did not take my heavy rifle nor my shikaree, who remained in camp sore-footed. I had with me a light gun loaded with shot, and a little revolver carbinc. After a while we parted company, and I crossed the hilly jungle accompanied by the village shikaree and three beaters. Suddenly, I came upon two panthers. One was an immense one; but before I could dismount they had both entered the jungle and gone up the hill. Riding up to the top and dismounting, and placing myself in about the position where I thought the panthers would come, I directed the beaters to throw stones into the bushes from the other side of where I was standing. Almost immediately, the smaller panther of the two was aroused, and putting her tail up in the air she moved in my direction, when she stopped. I saw clearly the point of her left shoulder, but not her head, and fired. She was some twelve yards distant, and fell apparently dead. I fired the other barrel at her backbone to make sure, when to my astonishment she got up, and went down the hill, every now and then falling forward. I again loaded—one barrel with a bullet and the other with shot, having no more bullets with me.

"Having warned the village shikaree to keep close behind me with the heavy spear he had in his hand, I began to follow the wounded panther; but had scarcely gone five and twenty yards, when one of the beaters who was on high ground beckoned to me, and pointed a little below him and in front of me. There was the large panther sitting out, unconcealed, between two bushes a dozen yards before me. I could not, however, see his head, and while I was thus delayed he came with a roar straight at me. I fired at his chest with the ball, and as he sprang upon me, the barrel containing the shot was aimed at his head. In the next moment he seized my left arm and the gun. Thus, not being able to use the gun as a club, I forced it crosswise into his mouth; he bit the stock through in one place, and whilst his upper fangs lacerated my arm and hand, the lower fangs went into the gun. His hind claws pierced my left thigh, and he tried very hard to throw me over. Meanwhile, the shikaree, who, had he kept the spear before him, might have stopped the charge of the panther. had retired some paces to the left, and he now instead of spearing the panther, shouted out and struck him, using the spear as a club. In a moment the animal was upon him, stripping him of my shikar bag, .his turban, my revolving rifle and spear. The man passed by me holding his wounded arm.

"The panther quietly crouched five paces in front of me, and I knew my only chance was to keep my eye upon him. He sat with all my despoiled property stripped from the shikarce around and under him. The first step I moved backwards, keeping my eye on the panther, I fell on my back into a thorn-bush, having slipped upon the rock. Here I was within one spring of the animal, who appeared, as far as I could see, to be not at all disabled by the fight. Nothing could have saved me had he again attacked, but there is 'a sweet little cherub that sits up aloft' to look after the life of the wild hunter. I retreated step by step, my face still towards the foe, till I got to my horse, where the beaters were collected, some forty yards from the fight.

"I immediately loaded the gun with a charge of shot and a bullet that I perchance found; and taking my revolver pistol out of the holster and sticking it in my belt, determined to carry on the affair to its issue, knowing how rarely men recover from such wounds as mine. I was bleeding profusely from large tooth wounds in the arm; the tendons of my left hand were torn open, and I had five claw wounds in the thigh. The poor shikaree's left arm was somewhat clawed up, and if the panther was not killed, the superstitions of the natives would go far to kill this man. Terribly frightened as he was, his wounds were not so bad as mine.

"I persuaded my horse-keeper to come with me, and taking the hog spear he had in hiz hand, we went to the spot where lay the weapons stripped from the shikarce. A few yards beyond them there crouched the huge panther. Again I could not see his head very distinctly behind his shoulder. In one moment he was again upon me. I gave him the charge of shot as I supposed in his face, but had no time to take aim. The horse-keeper, instead of spearing, fell upon his back, and in the next instant the panther got my left foot in his teeth and threw me on my back; I struck at him with the empty gun, and he seized the barrels with his mouth. This was his last effort. I sprang up and seizing the spear from the horse-keeper, drove it with both hands through his side, and thus killed him."

This ferocious beast was eight feet two inches in length; its tenacity of life was extraordinary, for when skinned, it was found that the first bullet had struck him in the throat and gone nearly through him; the shot-charge had cut off one of his fore-paws. In the second attack, the bullet had gone under his backbone and through his body, and the shot-charge had cut his other fore-paw almost to pieces. As for the victor in this combat, although terribly mauled and marked with brands that death alone can efface, within eight days he was sufficiently recovered to sit up and note the particulars of the adventure in his journal, and, so far from being daunted, to inscribe at the end of the note, "I hope in another fortnight to go and find the pair to this panther, which then escaped me."



On another occasion the same hunter, mounted on a light Arab horse, did battle with another ugly customer of the panther tribe. The first notice of the panther's presence was a defiant roar, and a leap from the bush where he had lain concealed to the back of an elephant attached to the hunting company, but which was luckily at the time without a rider. The panther gripped the backbone of the elephant in his wide jaws, and it was only after a vast amount of stamping and wriggling that the latter released himself of his bloodthirsty rider, who, on being shaken to the ground, bounded into a neighbouring jungle, the Captain and the rest following. "Where is the panther ?" asked our eager sportsman : the animal replied promptly for himself, with a great roar and a flying leap alighting on the Arab horse, and immediately behind the horseman—as in olden times ladies and gentlemen were wont to ride pillion — with its horrid mouth so close to the rider's loins, that they were warmed by the hot gusts of angry breath, but he could do nothing. The horse however, struggled valiantly, making prodigious leaps and kicking out with his hind legs until he dislodged his sharp-clawed enemy, who once more betook himself to the jungle.

Dismounting and sending home the wounded horse, the Captain bade the rest of the company to keep at a safe distance, and accompanied only by his shikaree, posted himself a few yards distant from the bush where the panther lay. There, however, the animal seemingly resolved to stay, and all the shouting and pistol-firing failed to shake his resolution. Seeking to advantage himself of the predilection for equestrian exercise already evinced by the panther, the hunter ordered a horse to be driven near the bush, but the panther was superior to the temptation. A knowing panther dog was loosed at the bush; but the concealed brute, to show his contempt for this proceeding, without showing another inch of his body, put out a leg and knocked down the dog, baring the leg-bone from shoulder to toes. Repeated shots were fired into the bush, but without the desired result, till the Captain, disgusted with the cowardice of his game, strode up to the bush and found the panther—gone !

At the same moment, however, a piercing shriek was heard a long distance, and having little doubt that the panther was the cause, sent a horseman to the spot from whence the cry proceeded, so that no time might be lost by waiting till his own horse was brought. This was unfortunate; for if, instead of waiting, the experienced hunter had mounted the first horse at hand, he might, perhaps, have been enabled to save the life of a fellow-creature. The case was this: when the panther had crawled out of the bush and made off, he encountered, coming peacefully along the road, a poor barber, who got his living by travelling from village to village. As soon as the panther saw the barber, he sprang upon him and threw him down. It was he who had uttered the shrick; and when the horseman despatched by the captain came up, he saw a man lying on the ground; but the evening had so far advanced, that he could see nothing else. "Where is the panther ?" asked the horseman of the prostrate man; the dreadful reply was, "He's eating me; don't you see !" and upon nearer inspection, the horseman saw the panther busily gnawing the live man's arm. The horror-stricken horseman

endeavoured to spear the brute; but fear of hitting the man spoilt his aim, and the panther, pausing in his dreadful meal, crouched and leap⁴ at his assailant, anchoring its claws deeply in the horse's flanks; the next moment, however, it jumped off and fled once more. The poor barber died eight days after; and the panther kept his liberty, remaining boldly in the neighbourhood full a month afterwards, preying on calves and stray cattle. "Four animals wounded," says the noble hunter who relates these thrilling stories, "and a man so severely injured that he died from it, are a pretty good proof of the desperate fighting propensities of the large panther of India."

Mr. Rice makes mention of the unceremonious way in which a panther introduced itself to the notice of himself and his brother-inarms, Mr. Little. The two renowned tiger-slayers were tracking the spoor of their royal game, which led into a deep ravine. Mr. Rice however shall himself tell the story.

"We had taken up our position on a very steep bank, and were anxiously waiting for the tiger's appearance, when, just as the noise of the beaters commenced, we were surprised by a stone falling from above and a little to the right of where we were posted. On looking up, we saw a splendid panther coming straight towards us. This compelled us to fire; had he been merely passing, as we were after nobler game, we should have let him alone for the time. We struck him with four bullets, on which he bounded down a small branch of the big ravine and was lost to sight, but only for a few moments; for, thinking he was bolting off, we each seized a spare gun and were running after him to get a parting shot, when, to my astonishment, I saw the panther in the act of charging down from a high rock directly over head. Instantly stopping short, I blazed both barrels into the beast, and then sprang off the rocky ledge on which we were standing into a small tree below.

"Little, seeing me fire, immediately got ready, and as the panther was in the act of leaping after me, by an admirable shot in the head, actually rolled him over in the air while making his spring in a most determined charge. The panther came tumbling down head over heels, completely doubled up, through the boughs of the tree into which I had jumped, and fell dead at the foot of it. Little was only about three or four yards off at the time he made this wonderfully lucky shot, which no doubt saved me from a good 'mauling.' if not even worse."

In the course of my perusal of Captain Shakespeare's' valuable book, I came across "an apology for hunting" by that bluff, brave soldier-sportsman. Apart from the consideration, whether anything like an excuse for so natural a proceeding as hunting is necessary, or whether the arguments adduced by the captain are tenable, it is worthy of insertion here for two especial reasons—firstly, on account of its simple earnestness; and secondly, because of the rare occurrence of a chaser of wild beasts even giving a thought to the moral responsibility attaching to the business, or, perhaps it would be fairer to say, thinking it worth while to give his ideas on the subject to the public.

"I must," says he, "endeavour to redeem my brother sportsmen and myself from the charge of cruelty, a charge not uncommonly made, I believe, without thought, and in ignorance. I must first enlist my reader's sympathies, and get him or her to acknowledge that the hunter in India, who runs risks and meets with accidents such a-I have described in these papers, leads no life of ease or indolence ; but, on the contrary, that his life is one of severe toil, labour, and danger. The feeling that he is doing some good in his generation, and leading not quite a useless life, must repay him for his exertions; for I fear that gratitude among the natives in India is too like what it is in colder climates, and what Rochefoucault describes 'as a lively sense of favours to come.' Now, for his own protection, it is necessary that the hunter should be able to use his rifle well, both at animals standing or moving, and whether they are going from him, or passing or attacking him. Tigers, panthers, bears, bison, &c., and the other feroces ferce, or savage wild animals, do not abound in sufficient numbers to give him the necessary practice for becoming so good a shot as to make certain of hitting them at all when in jungle, much less of hitting them in parts of the body where the shot will disable, stop, or kill. The hunter, therefore, fires at deer, of which, as before mentioned, there are many varieties, as practice for his rifle. This is also necessary to keep his native hunters, or shikarces, in condition to stand severe labour. Besides, the eating the flesh of the game killed makes them keen. A good shikaree will rarely remain in the service of a man who cannot kill his game. I trust I have logically proved that shooting deer and the fauna is not cruel. It can only be

considered so, when a very great and wanton destruction of life is caused, or where they are fired at with shot. This is done heedlessly, no doubt, and with a desire to bag game at all hazards; but I hope my readers will agree with me that it is not a legitimate way of killing deer, and that it would be far better to fire away with ball until practice taught a man how to shoot, than to obtain deer by what may be considered the weapon and missile that ought to be employed for hares and partridges. Again, the tying up calves or goats as a bait for tigers or panthers appears at first blush to be cruel; but it must be taken into consideration that these animals will not take a dead bait, that they are not scavengers like hyænas or jackals, and that by sacrificing the life of the bullock or goat, you shoot the tiger or panther that has killed, and will kill, hundreds and hundreds of bullocks and goats; or perhaps, in the case of man-eaters or manslayers, hundreds of men, women, and children.

"The bullock being a very cold-blooded animal is not under much alarm when tied up, as has already been clearly shown. He may be in the paws or jaws of a tiger, and if he escapes his nerves are not much the worse. He will eat grass and drink water immediately after being released, with sundry holes in his throat and claw wounds in his body."

It is likewise evident that Captain Shakespeare has as little belief in the extraordinary perils of jungle-hunting as he has in the cruelty of the pastime. "After upwards of twenty-five years' service," says he; "after having, on three separate occasions, had bones broken in hunting—twice from horses falling and rolling over; having been wounded by a wild boar, wounded by a panther, and again wounded in action, the author of these pages is still in good health, and capable of riding a hundred miles in the day. . . . May the reader ever bear in mind that he who walks in the untrodden forests of India, teeming as they are in many places with wild animals, goes as it were with his life in his hand; and, though

> ' Fate steals along with silent tread, Found oftenest in what least we dread,'

that there is One who is always watching over and caring for us, even when we do not take care of ourselves."

As regards insensibility to pain evinced by the Ruminantia, the

captain's statement is corroborated by many other sportsmen. Take the story (to be found in another part of this volume) told by Mr Lamont of the reindeer whose leg he so shattered with a bullet that it could not stir; yet when Lamont approached it it was coolly nibbling the grass around it. Then we have the evidence of the great traveller and explorer, Mungo Park, who relates it as of no uncommon occurrence, when provisions ran short on a march, for the African to carve from an ox a living rump-steak, and plastering the wound with dung allow the animal to continue its labours. Mr. Parry likewise furnishes proof of the cold-bloodedness of this class of animal. While he was staying with a friend at the Cape, a leopard one night endcavoured to make burglarious entry into a shed in which a calf was tied. It succeeded however only to the extent of forcing in a plank, and seizing the silly beast within by the back, out of which it bit a large piece. It would seem that the calf had managed to wriggle out of the leopard's clutches and to retreat to the further side of the shed; for there it was found next morning lying down and in a pitiable condition. The man who discovered the maimed animal had brought with him a bundle of fodder for its breakfast, which he put down while he examined the beast's injuries. Sniffing the green meat, however, the calf at once scrambled on to its feet, and commenced munching away as though a pound of meat abstracted from its living buttocks was not of the least consequence.



THE JAGUAR.

The jaguar, which is larger and more powerful than the leopard, is an inhabitant of America. It nearly resembles the latter animal in colour, only that it has a black streak across the chest, and a black spot in the centre of each of the rose-shaped patches that adorn its hide. The woody banks of lakes and rivers are the favourite haunts of the jaguar. Falconer, speaking of the jaguars lunking in the woods near the southern side of the mouth of the river Plata, asserts that they live chiefly on fish. It is even said so far to depart from the usual habits of its feline brethren, as to enter the water, and turn fisher, flicking the finny denizens to the bank by a stroke of his supple fore-paw.

It is fond of climbing trees, a habit rendered easy by the possession of curiously sharp and crooked claws. Referring to this subject, Darwin says, "One day when hunting on the banks of the Uruguay, I was shown certain trees to which these animals constantly recur, for the purpose, as it is said, of sharpening their claws. I saw three well-known trees. In front the bark was worn smooth, as if by the breast of the animal, and on each side there were deep scratches, or rather grooves, extending in an oblique line, nearly a yard in length. The scars were of different ages. A common method of ascertaining whether a jaguar is in the neighbourhood, is by examining these trees. I imagine that this habit of the jaguar is exactly similar to ono which may any day be seen in the common cat, as with outstretched leg, and extended claws, it scrapes the legs of a chair. Some such habit must also be common to the puma, for on the bare, hard soil of Patagonia, I have frequently seen scars so deep that no other animal could have made them. The object of this practice is, I believe, to tear off the ragged points of their claws, and not, as the Guachos think, to sharpen them."

The common prey of the jaguar is the capybara, and when this animal is abundant, the jaguar seldom attacks any other. Its mode of killing its prey is invariable, and although somewhat horrid to think of, is certainly more merciful than many other modes adopted by savage beasts. Leaping to the back of the doomed animal, the jaguar, by a rapid movement of the forepaws, twists its head round and breaks its neck. When the islands they usually inhabit are flooded, as is frequently the case, the jaguar resorts to the mainland to assuage its hunger, and it is never so terrible as at such periods. There is a story that, a few years since, one of these gaunt, famished creatures finding the door of the church of St. Fé open, entered the building. Two padres entering one after the other were killed; and a third, forewarned by the horrid sounds of crunching and growling, escaped by a miracle. No one daring to enter the church to destroy the monster, a portion of the roof was taken off, and a deadly bullet aimed at him through the breach. If driven from a carcase they will seldom return to it, preferring rather to hunt down another.

Some time ago, a Jaguar was procured for the Zoological Society by Captain Inglefield. The behaviour of this animal during the voyage was such as to controvert the long established notions respecting the Jaguar's morose and savage temper. The story of "Doctor's" homeward voyage was related to Wood the naturalist by Captain Inglefield himself, and we cannot do better than set it before our readers in the former gentleman's piquant language.

"The Jaguar was named 'Doctor,' and was as well acquainted with its name as any dog. It was at times rather lazy, and loved to lie at full length on deck, and stretch its limbs to their full extent. It was so perfectly tame that Captain Inglefield was accustomed to lie down by the side of the spotted favourite, using its body as his pillow. When the vessel arrived in harbour, and people were anxious to view the Jaguar, the creature walked to the stable where it was to be exhibited, merely being led by its chain. It was a remarkable circumstance, that, although the animal was so entirely tame and gentle towards men, and would let them pull it about in their rough play, it could never be trusted in the presence of a little child, nor of a dog. In either case, the animal became excited, and used to stretch its chain to its utmost limit.

"Uncooked meat was never permitted in its diet, and, except in one or two instances, when the animal contrived to obtain raw flesh, it was fod exclusively on meat that had been boiled. One of these exceptional cases was rather amusing.

"At Monte Video, the admiral had signalled for the captains of H.M. ships to come on board and dine with him. His cook was, of course, very busy on the occasion, and more especially so, as there was at the time rather a scarcity of fresh provisions. The steward had been making the necessary arrangements for the entertainment, and came on board carrying a leg of mutton and some fowls. Just as he stepped on deck, the Jaguar bounced out of his hiding-place, and, clutching the meat and fowls out of the steward's hands, ran off with them. The fowls were rescued by the captain, who got them away from the robber undamaged, with the exception of their heads, which had been bitten off and eaten, but the mutton was past reclaiming, and so, to the great disgust of the cook and steward, the bill of fare had to be altered.

"When 'Doctor' received his daily food, he used to clutch and growl over it like a cat over a mouse, but was sufficiently gentle to permit the meat to be abstracted. In order to take away the animal's food, two men were employed, armed with large sticks, one of whom took his place in front of the Jaguar, and the other in the rear. When all was arranged, the man in the rear poked 'Doctor' behind, and, as he turned round to see what was the matter, the man in front hooked away the meat with his stick. However the animal might growl over its food, and snarl at any one who approached, it would become perfectly quiet and gentle as soon as the cause of anger was removed.

"It was a very playful animal, and was as mischievous in its sport as any kitten, delighting to find any one who would join in a game of romps, and acting just as a kitten would under similar circumstances. As the animal increased in size and strength its play began to be rather too rough to be agreeable, and was, moreover, productize of rather unpleasant consequences to its fellow voyagers. For, as is the custom with all the cat tribe, the Jaguar delighted in sticking its talons into the clothes of its human playfellows, and tearing them in a disastrous manner. The creature was so amusing that no one could resist the temptation of playing with it, and so the evil was remedied by docking the 'Doctor's' claws of their sharp points.

"This animal was about two years old when it was brought to England, and died but very lately. Two years after its arrival, Captain Inglefield went to see his old favourite, the 'Doctor,' and found that the Jaguar recognised him in spite of the long interval of time, and permitted him to pat its head and to open its mouth."



THE LYNX

THE LYNX.

THE lynx, a native of North America, may be classed among th most timid of the *Felidæ* order of carnivora. In length it is about three feet, and it differs from the ordinary cat in the shortness of its tail, and the possession of tufts of hair at the tips of its ears. The chief food of the lynx is the hare, and such other quadrupeds and birds as may be attacked with impunity. Its mode of locomotion is peculiar, and consists of regular bounds from off its four feet, the back being arched at every fresh spring. Its flesh is eatable; but it is chiefly important on account of its skin, which forms an important item of business with the Hudson Bay Company.

HABITAT OF THE BUFFALO.

THERE are few among beasts who hold if I may so express myself—so respectable a position as the buffalo. In the first place, he is a handsome animal, of graceful shape, and a giant in strength; in his native wilds he is just a peaceful grazer, contented to pass his life cropping grass and green leaves, and to interfere with no animal, human or other; but, challenge him to war, and the fiercest hunter could not desire bolder game; capture and tame him, and he will draw your plough or wagon as submissively as the ox. He is a faithful friend, and will fight to the death on behalf of his companions, and for the sake of its young will do battle with the lion himself.

Of retiring habits, they affect vast solitudes where verdure abounds, and there is no lack of rivers and pools in which they may luxuriate. immersing themselves till only their heads appear above the surface, cooling their leathery hides and getting respite from the formidable stinging things that fly, or the biters that closely adhere to their bodies. If water is unattainable, the buffalo will content himself with mud, if there is plenty of it. Throwing himself flat upon his side in the mire, he shuffles round and round, the soil yielding to his immense weight the exudation of any moisture there may be, till he manufactures for himself a delicious basin of mortar, covering him to his very eyes. When he rises and walks off, he presents a decidedly unhandsome appearance, which is not improved when, in the course of an hour or so, the sun bakes his mud crust, and he looks, when standing still, like some hideous clay image. Ease, however, is of considerably more importance to the buffalo than elegance, and antil the motion of his limbs causes his ugly coat to peel off he may defy all the vermin in the world:

In the same way as horses are used in some parts of England in the sport known as "trolling for larks," the Singhalese train the buffalo to assist in shooting water-fowl. Holding on to a rope attached to the buffalo's horns, the sportsman conceals himself behind the animal, which, guided by the rope, walks leisurely toward the fowls. The birds being familiar with the buffalo's presence, take no heed of him, and are quite unaware of the gunner, till roused by the bang which sends death amongst them.

In North America, especially in the neighbourhood of Upper Missouri, are found immense droves of huge ruminating animals, universally known as "Buffaloes." The region where they most abound is called the "buffalo country;" the Indians who make the chase of the animal their special business are called and call themselves "buffalo Indians;" and the skins of the animals in which the Hudson's Bay Fur Company deal largely, are known as "buffalo robes," and nothing else. In appearance, however, he is every inch a bison, and it is only in its calf-hood and in the spring, when he sheds his great mane, that he at all resembles the animal whose name he usurps. Catlin, who, from his long residence in North America, must have been well qualified to judge of the animal, says, "The word "Suffalo' is undoubtedly most incorrectly applied to them, and I can scarcely tell why they have been so called; they bear just about as much resemblance to an Eastern buffalo as they do to the zebra or common ox: yet if I were to judge from the numerous engravings I have seen of the European bison, and from the descriptions I have read of it, I should be inclined to think there was yet a wide difference between the bison of the American prairies and those in the north of Europe and Asia." Allowing, however, that he is entitled to the name of "buffalo" by right of custom, he shall have a place in this chapter.

This maned buffalo is without doubt one of the most important animals on earth, an assertion needing no other support than the fact that three hundred thousand human beings depend for their very lives, and for everything-according to their savage notions-worth living for, solely and entirely on the buffalo. The flesh is their meat, the skin serves them for coats, and keds, and boots, and walls for their tents, and tiles for the roof, and for saddles, and bridles, and lassos; the bones are converted into saddle-trees, into war-clubs, into whistles, and musical instruments; of the horn are made ladles, and spoons, and pins, and spear-heads; the sinews serve for strings to their bows, for thread to stitch their buffalo robes, to stitch the tent cloth, and for the attachment to their persons of scalps and such other articles of vertu as may fall in their way; the buffalo's feet and hoofs, when stewed, yield a superior glue, which is largely used in the construction of hunting spears and arrows; the buffalo's mane is twisted into ropes and horse-halters, and the tuft at the extremity of his tail as a whisk or fly-brush; the brains even are not wasted, but used in the preparation of leather thongs cut from the hide.

Being given to erratic wandering, the North American frequently, and without an hour's notice, utterly deserts a district in search of "pasture new." With powerful tribes this is of little consequence, but to hordes limited in number, and on such bad terms with their more powerful neighbours that they dare not stir many miles from home, the departure of the buffaloes is regarded with horror and dismay; and no wonder, for, with the fierce animal goes their larder, their clothes-store, their armoury, the roof that shelters them, and the bed they lie on. Something must be done : so say the chief and elderly men who sit in council on the subject. The "something," however, was never yet known to be anything but one thing, and that is the order for a great "buffalo dance." "Every man in the village," says Mr. Catlin, "is obliged to keep the mask of a buffalo hanging on

a post at the head of his bed, which he can wear, whenever he is called on by his chief to take part in a buffalo dance. The mask is put over the head, and generally has attached to it a strip of the animal's skin of the entire length, and with the tail attached." Assembling in a great circle, the pantomime commences. One man steps into the middle, and sets about imitating a buffalo, going through the motions of grazing, kicking up behind and before, and roaring lustily. When he is tired, he signifies the same by bowing his head to the ground; whereon one of his companions fits a blunt arrow to his bow, and aims at the tired dancer, who falls like a dead buffalo, and is seized by his friends and dragged out of the ring by his heels; others then take him in hand, and brandishing their knives, go through all the motions of skinning and cutting him up. As soon as one man is dragged out, another buffalo-headed dancer takes his place; and so the game is kept alive night and day without a moment's cessation, till above the deafening din raised by the spectators is heard the welcome whoop of one of the ever-watching scouts, announcing that "buffalo come." Not another instant is devoted to mummery. Buffalo masks are thrown aside, bows strung, a finishing whet given to spears, the ready steed mounted, and with the speed of the wind away fly the lithe hunters, cheered by the hopeful cries and hand-clappings of anxious squaws, who merrily set about fire making and pot scouring against their "ole men" return.

Sometimes, however, it will happen that instead of a rejoicing beefladen cavalcade, there return to the wigwams but a tithe of the company that set out, and they wounded and blood-bedraggled, and instead of feasting and riot in the "Mandans" home, there is wailing and lamentation. It is a common trick for a neighbouring and hostile tribe treacherously to trap their hungry buffalo-seeking enemies to destruction in the following manner:—Well knowing that scouts are posted by the dancers on every available eminence, the hostile ones gather, fully armed, behind a distant hill ; then six or eight cunning rascals, clothed in the skin of the buffalo, and walking on all fours, top the hill, and commence browsing down the slope in the most natural way ; up come the impatient hunters helter-skelter up the hill, and as they approach near, the fictitious buffaloes retreat to the crown of it and are lost to view on the other side. The meat-seekers, however, are not to be baulked ; up they go, but alas ' having arrived at ths summit of the bluff, an appalling yell greets them, spears and arrows whistle through the air, and of the hunting company one half are presently galloping off, while the remainder lie scallless on 'he ground.



EP." FTON (F BUFFALO


HOW THE BUFFALO IS HUNTED.

WHEN Captain Methuen and his party were hunting at the Cape he had an opportunity of judging how terrible a beast the bull buffalo is when wounded and hard driven by the daring sportsmen. With the captain were a Hottentot attendant, named Frolⁱc, and a friend, named Moneypenny, and having discovered a herd of buffaloes, the trio let fly at them, wounding some, but not so badly but that the entire drove escaped to an impenetrable patch of forest. The captain, however, climbed into a tree, and thereby sighted and shot another bull, whereon "the wounded animal ran towards the report, his cars outstretched, his eyes moving in all directions, and his nose carried in a right line with the head, evidently bent on revenge : he passed within thirty yards of me, and was lost in the bush. Descending from our frail perch, Frolic again discovered this buffalo standing amongst some small thick bushes which nearly hid him from view; his head was lowered, not a muscle of his body moved, and he was without doubt listening intently. We crept noiselessly to a bush, and I again fired.

"The huge brute ran forward with the wind, fortunately not in our direction, and again stood still. Presently he lay gently down, and knowing that buffaloes are exceedingly cunning, and will adopt this plan merely to escape notice and entrap their persecutors, we drew near with great caution. I again fired through his shoulder, and concluded from his not attempting to rise that he was helpless ; we walked close up to him, and never can the scene which followed be erased from my memory. Turning his ponderous head round, his eye caught our figures; I fired the second barrel of my rifle behind his horns, but it did not reach the brain. His wounds gave him some difficulty in getting up, which afforded Moneypenny and myself just time to ensconce ourselves behind the slender shrubs that grew round the spot, while Frolic unwisely took to his heels. The buffalo saw him, and uttering a continued unearthly noise between a grunt and a bellow, advanced at a pace at which these unwieldy creatures are rarely seen to run, unless stirred by revenge.

"Crashing through the low bushes, as if they were stubble, he passed me, but charged quite over Moneypenny's lurking-place, who aimed at him as he came on, and lodged the ball in the rocky mass of horn above his head; the buffalo was so near at the time of his firing, that his horn struck the barrel of the gun the next instant; but whether the noise and smoke confused the animal, or he was partially stunned by the bullet, he missed my friend, and continued his pursuit of Frolic. The Hottentot dodged the terrible brute round the bushes, but through these slight obstacles it dashed with ease and gained ground rapidly. Speechless we watched the chase, and in the awful moment, regardless of concealment, stood up and saw the buffalo overtake his victim and knock him down. At this crisis my friend fired his second barrel at the beast, which gave Frolic one or two blows with his fore feet, and pushing his nose under, endeavoured to toss him; but the Hottentot, aware of this, with much presence of mind, lay perfectly still. Directly after, the buffalo stumbled, and fell dead, and Frolic got on his legs, and limped towards us. He was much hurt, and the powder-flask in his game-bag was stamped quite flat."

Although of a pacific disposition, the buffalo will defend himself with astonishing courage against the attacks of either man or beast when brought to bay. The bear has no chance with, and even the cunning tiger dare not face the buffalo's terrible horns, and can only obtain the mastery by lying in ambush, and springing on to the buffalo's flanks.

In a letter to his friend Dr. Livingstone, Mr. Vardon thus describes a terrific struggle between a buffalo and three lions as witnessed and assisted at by himself and Mr. Oswell, on the banks of the Limpopo :---"Oswell and I were riding along the banks of the river when a water buck started in front of us. I dismounted, and was following it through the jungle, when three buffaloes got up, and after going a little distance stood still, and the nearest bull turned round and looked at m/. A ball from a two-ouncer crashed into his shoulder, and they all three made off. Oswell and I followed as soon as I had reloaded, and when we were in sight of the buffalo, and gaining on him every stride, three lions leapt on the unfortunate brute; he bellowed most lustily as he kept up a kind of running fight, but he was of course soon overpowered and pulled down. We had a fine view of the struggle, and saw the lions on their hind legs tearing away with teeth and claws in the most ferocious style. We kept up within thirty yards, and kneeling down blazed away at the lions. My rifle was a single barrel, and I had no spare gun. One lion fell dead almost on the buffalo; he had merely time to turn towards us, seize a bush with its teeth, and drop dead with the stick in his jaws. The second made off directly; and the third raised his head coolly, looked round for a moment, then went on tearing and biting at the carcase as hard as ever. We retired a short distance to load, then again advanced and fired. The lion made off, but the ball that he received ought to have stopped him, as it went clear through his shoulder-blade. He was followed up and killed, after having charged several times. Both lions were males. The buffalo had of course gone close to where the lions were lying down, and they seeing him lame and bleeding, thought the opportunity too good a one to be lost. It is not often that one bags a brace of lions and a bull buffalo in about ten minutes."

The buffalo, as well as the rhinoceros and the hippopotamus, has its tiny winged attendant. What *buphaga Africana* is to the former, *textor erythrorhynchus* is to the latter—at least as regards hunting out and destroying the tiresome, biting, and stinging parasites that infest the animal's hide. Whether like *buphaga* it warns the buffalo of the approach of danger, there is no evidence to show. Although, according to Livingstone and others, *textor* declines to officiate for any animal save the buffalo, it exists in vast colonies in regions where the buffalo is unknown. For instance, Mr. Andersson makes mention of the birds existing in parts of Damara-land, South Africa, where the animal in question has never left the print of its hoof.



TEXTOR ERYTHRORHYNCHUS.

Buffalo hunting is almost invariably conducted by the North American Indian on horseback. He wears scarcely any clothing during the hunt, as it might impede his running, and, as he well knows, he may before the day is over have to depend for his life on his legs; his horse wears a saddle, but no bridle, merely a rope of buffalo hair noosed round the horse's lower jaw, the ends of the rope serving as reins. The Indian's horse is of stunted stature, but brimful of blood and fire, and enters on the business as eagerly as his rider, or if it does not, its master carries, tied to his wrist, a terrible whip, the thong of which cuts like a knife, and he is cruelly adroit in its use. Singling out a beast from a herd, the savage huntsman urges forward his steed,

by kind words if they are known to be more potent than application of whip, but not otherwise ; and the chase begins in earnest over hill and plain till the horse and the buffalo are abreast. Then the Indian letting loose the reins, and plucking an arrow from his quiver, fits it to his bow, and the next moment the shaft is buried behind the animal's shoulder. Now is the moment of danger. Even though stricken to death, it seldom happens but that the buffalo has a few seconds' life left to him, and you may depend on his devoting every fraction of that few seconds to the deadliest vengeance ; therefore the hunter's little horse is so trained that the twang of the bow is the signal for him to sheer off at a tangent at the highest speed he is yet capable of. If, however, by any unlucky chance the buffalo's thundering charge cannot be avoided, a cat cannot leap from a table to the floor with greater ease and certainty than the wild rider vaults from his saddle, and, with that long two-edged knife of his, speedily ends the uneven battle waging between his nag and the wounded beast. Sometimes, warily stealing down on an immense herd of the savage creatures quietly browsing, the wild huntsmen start up with sudden yells, and drive the frantic brutes before them, till they approach the verge of a precipice, over which the foremost ones will certainly be toppled by the rear ones, who, ignorant of the cause for halting, drive their fellows forward with all the strength of their mighty shoulders.

The white wolf is to the buffalo a most formidable enemy. Hunting in packs of one or two hundred, they will rush upon two or three solitary buffaloes roaming peacefully over the prairie, and, surrounding them, worry the huge brutes to death. The cowardly rascals, however, never find courage enough to attack a herd, although the latter, when they catch sight of wolves, evince considerable alarm, and form into battle array to receive the foe, while it is evident from their uneasy motions that it is only extreme terrer that hinders them running away. The Indian hunter sometimes takes advantage of this. He attires himself in the coat of a white wolf, and clutching his bow and arrows boldly faces a herd, and on his hands and knees crawls towards them: the scared buffaloes huddle together to receive the supposed wolf, who, when at a convenient distance, jumps upon his feet, and further astonishes the herd by such horrid yells and yelpe as can only emanate from the throat of a red man, and before they can recover the fright he has made buffalo-beef of the finest of them.

In the depth of winter, when the snow is so heaped on the ground that anything in the shape of speed is impossible to any quadruped, the Indian, deprived of the services of his steed, is left to his wits tr supply his family with food. The buffalo can no more than the horse run through the snow, but then no more can the hunter, who after all would stick where the tremendous buffalo could shoulder his way : but the savage possesses something more potent than broad shoulders So he sets to work and constructs of tough bark and -Mind. thongs of raw hide a sort of pear-shaped sieve, three feet long and a foot broad; one of these he lashes to each foot, and so equipped can slide and glide over the snow at racehorse pace. With a pair of these snow-shoes, and armed with a long spear, buffalo hunting becomes as unromantic a pursuit as pig-sticking, the poor animals being followed till they are completely wedged in the snow, and in that helpless condition deliberately spitted.

Terrible stories are told by hunters of battles between packs of gaunt wolves and solitary buffaloes on the prairies of America. Mr. Catlin thus describes such a scene as witnessed by himself and a companion on the shores of Teton River :--- "During my travels in these regions I have several times come across gangs of wolves surrounding an old or wounded bull buffalo, where it would seem from appearances that they had been for several days in attendance, and at intervals desperately engaged in efforts to take his life. But a short time since, as one of my hunting companions and myself were returning to our encampment with our horses laden with meat, we discovered at a distance a huge bull surrounded by a gang of wolves. We rode up and gave the signal for them to disperse, which they instantly did, withdrawing themselves to a distance of fifty or sixty rods, when to our surprise we found that the animal had made a long and desperate resistance, and that his nose, ears, and tongue were partly gone, and his legs almost stript of their skin. In this tattered and torn condition, the poor old veteran stood bracing himself up in the midst of his devourers, who had ceased hostilities for a few minutes to enjoy a sort of parley, recovering strength, and preparing to resume the attack again in a few moments. In this group some were reclining to gain breath, whilst others were sneaking about and licking their chaps in anxiety to renew the attack, and others, less lucky, had been crushed to death by the horns or hoofs of the bull. I

rode nearer the pitiable object as he stood bleeding and trembling before me, and said to him, 'Now is your time, old fellow; you had best be off !' Though blind and nearly destroyed, there seemed evidently to be a recognition of a friend in me as he straightened up, and, trembling with excitement, dashed off at full speed. We turned our horses and resumed our march; but looking back, the poor bull was j once more at bay, and surrounded by his tormentors, to whose insatiable voracity he unquestionably soon fell a victim."

Painful and distressing as is the above narration, indignant as one must feel at the conduct of the rascally wolves, in my opinion their behaviour was not a whit less savage than that of a human being—an armed man, and a practised sportsman—who could for a moment not only stand and view the agonies of the poor blind and torn beast, but with a lackadaisical speech bid the crippled buffalo "be off." I have no doubt Mr. Catlin thought that he was behaving as a humane man should, but it seems to me that the exercise of a triffe less sentiment, and the substitution of a dram of powder and a merciful bullet, would have been much more to the purpose.

Captain Drayson, in his usual dashing, rattling style, gives an account of a buffalo chase in which he and a grim old bull were the chief parties concerned. Far away in Southern Africa, the thoughts of the gallant captain are at home, and he likens the sport to a race at Epsom. "Here is the Epsom of Africa : a lawn of twenty-five miles, the match p.p., the parties a stout little thirteen hands high pony, with eleven stone on his back, and a bull buffalo sixteen hands high, with a feather weight. Now what are the odds ? Who will bet two to one on the buffalo ? What is the opinion of the jackal, I wonder, who is peeping over the shoulders of his young family from out of the hole that has been his residence since the ant-bear who built it was killed last year by a leopard? What will the bushman lay against the buffalo being dropped in the first two miles? This fellow does not care much which is the winner so that one or the other is killed. From his hiding-place in the rock's crannies he watches the race with great excitement. If the buffalo is killed, he is sure to fall in for a share of the meat. If the white man breaks his neck in some of the jackals' holes or game pits, it will be hard lines if he does not manage that very night to ride in the saddle now occupied by the white man.

"Now they are ready for the start. The hoofs of the horse

striking on the ground act the part of starting-bell; the hunter's approach is thus discovered; the buffalo whirls his tail, and 'they're off' would be the remark if there were any there to make it. But no, not a living soul is seen: all is earth, sky, and wild animals. The bushman on the distant mountain sees the race plainly. 'Cluck, cluck, click, click!' Why is the bushman so excited ? Ah! he knows all about it; the buffalo has turned a little, and is now making for some old game pits with a sharp stake in the middle of each.

"Now what a chance! Both buffalo and horse may be engulphed —all three perhaps killed! What a glorious *finale* this would be! Fancy the jollification of buffalo beef to commence with, and a second course of horseflesh, while between the mouthfuls a knife might be driven in spite between the ribs of the broken-necked white man, whose body would be lying by! Unfortunately, and bad luck for 'cluck, click,' neither buffalo nor horse has yet broken his neck. . . . Now the hunter rides nearly alongside the bull, and it is neck and neck. What a change! Now the hunter is the hunted! The buffalo with head low is charging, when the rider suddenly wheels, and dropping apparently off his horse, takes steady aim; two little white puffs of smoke may be seen, a thousand echoing guns are heard like a volley from the surrounding mountains, and the buffalo reposes at full length on the plain to rise no more."





THE HON. GRANTLEY F. BERKELEY.

THIS gentleman's high reputation as a sportsman entitles him to a niche in our portrait gallery—no great honour may-be, except for the sake of the company already there assembled. The author of "Wild Sports" is sorry, for the reader's sake, that Mr. Berkeley's "English Sportsman in the Western Prairies" appeared in the book-market too late to render it available in the present compilation. He is especially sorry, because the animal chiefly treated of is one almost unknown to English hunters—the buffalo-bison of the far West. Had the big handsome volume come to hand in time, the readers of these pages would have been regaled with some stories of bison hunting, the like of which were never yet published.

Regarding the buffalo as a mere unwieldy, uncultivated ox, the reader may be disposed to exclaim with the gentleman to whom Mr. Berkeley applied on the subject, "Shooting buffalo is nothing better nor more wild than walking up to and shooting oxen in a farmyard." It would be a bad job for the gentleman in question, or any other, were he to essay prairie-hunting armed with no more formidable a weapon than would suffice for a farmyard slaughter. The buffalo is a peculiarly malicious and cunning beast, and given to lying in wait, so that he may attack you in rear and unaware. Neither is he always satisfied by goring you to death; he will ram his thick head at your lifeless body and tear at it with his sharp hoofs, and so batter it that it shall be nearly undistinguishable from the surrounding mire. There is now, or was till very lately, exhibited in the window of the *Field* newspaper-office in the Strand the stuffed skin of a bison, to whose desperate cunning Mr. Berkeley nearly fell a victim. Having chased his game up a steep bank, the shaggy monster suddenly vanished, and on spurring his nag to the topmost edge of the slope the hunter found, at leaping depth below, a sort of creek. The horse, however, usually so full of pluck and fire, refused to take the jump-a marvel Berkeley was fain to dismount to solve. He had not long to look. Crouching in the lee of the bank there was the bison, evidently waiting for the leap that should place horse and rider at his mercy.





SKELETON OF WOLF.

THE WOLF.

COMBINING the scent and perseverance of the hound, the endurance of the camel, the cunning of the fox, and the ferocity of the tiger, the wolf is, without doubt, one of the most cruel and bloodthirsty of man's four-footed foes. In a remote era this savage animal, never now seen by home-loving Englishmen but in menageries and zoological shows, abounded in Britain. Roadside refuges were erected in tho counties of Gloucester, Worcester, Shropshire, and Hereford, built of strong timber and with massive doors, to which the traveller might flee when wolf-chased. January, the month in which wolves couple, was by our Anglo-Saxon forefathers called "Wolf-moneth" or wolfmonth, because of the depredations committed by the animals in question at that particular time of year; and when a man was outlawed he was said to be "wolf-shed," *i.e.* abandoned to the wolves.

In the reign of King Edgar, Britain was so troubled by wolves that a law was passed enabling the relations of an offender against the state to ransom him with wolves' tongues, the number being regulated according to the degree of crime. Nevertheless the savage beast so increased and multiplied, that King Edward the First did, on the 12th of May, 1281, appoint one Peter Corbet wolf-hunter general, and commanded all bailiffs, &c. to aid and assiss him.

Between the wolf and the dog there exists no anatomical difference with the exception of an obliquity in the position of the eye of the former ; but the doctrine held by many celebrated men, that the wolf and the dog descend from one common stock, is, to say the least, extremely doubtful. There exist many species of wild dogs quite distinct from the wolf; indeed, between the two animals there prevails so natural an antipathy, that they seldom encounter each other without a combat of the fiercest kind immediately taking place. The victorious wolf will devour the carcase of his enemy; but should the dog conquer, the dead wolf may lie untouched. Again, wolves yelp, and howl, and growl, but, except in the case of one met with in Southern Africa, never bark.

In the "good old times," when nastiness was the standard by which the efficacy of medicines was measured, pounded wolf's liver steeped in wine was regarded as a sovereign remedy for liver-complaint. Wolfgrease rubbed over the portals and threshold of a house, was supposed to be a barrier that the most audacious demon or witch would not endeavour to surmount. A wolf's snout split and dried was thought a surpassing antidote to the machinations of the Evil One, and one might be found as commonly on barn doors as are horseshoes in the present day; "moreover," says Pliny, "the great master teeth and grinders of a wolf being hanged about a horse's neck, he shall never tire or be weary, be he put to never so much running in any race whatsoever."

In spite, however, of the "charms" supposed to attach to the wolf's various parts when dead, no treatment was thought too cruel or diabolical for him when trapped alive. "When a county was much infested with wolves, the following ceremony was performed with much solemnity and deep drinking: a wolf when caught alive had his legs carefully broken; he was then dragged around the confines of the farm, being bled with a knife from time to time, so that the blood might sprinkle the ground. Being generally dead when the journey had been completed, he was buried in the very spot whence he had started on his painful race."





HABITAT OF THE WOLF.

WHEN a litter of young wolves are about to come into the world, the mother carefully prepares a comfortable bed of any soft substance

she can gather, and interweaves it with some of her undermost fur. When the cubs are born, they are gradually accustomed to eat flesh, and when about four months old are taken out by their parents, and "learnt their business." "Not the least curious part of their education," says a well-known writer, "consists of their being inured to suffering, and taught to bear pain without complaint; their parents are said to bite, maltreat, and drag them by the tail, punishing them if they utter a cry, until they have learned to be mute."

Not only is the she-wolf exceedingly fond of her progeny, she is, as there is abundant proof, pleased that others should notice her cubs. Hearne relates that he has frequently seen the Indians go to their dens. take out the cubs, and play with them. The wolf, however, knows he is perfectly safe in the hands of the Indian. Almost all Hindoos have a superstitious dread of destroying, or even injuring it, and the village community within whose boundary a drop of wolf's blood has been shed, believes itself cursed until sufficient atonement be made. Wolves, however, confined in England have exhibited the same confidence in their jailors, as regards their young, and equal satisfaction at seeing them caressed. One confined in the Tower uenagerie, though of fierce disposition, looked on contentedly while the keepers handled and playod with her cubs; and it is recorded by Bell that a she-wolf which was exhibited with other wild beasts was so anxious that the public should see her pups, that, one after the other, she rasped the life out of them against the front bars of her prison.

Respecting the cunning of the wolf, it is doubtful if even that symbol of sly, the fox, can match it. When inhabiting populated districts, where of course constant war is waged against him, the craft he exhibits is wonderful; he will never quit cover to windward; as he trots along, he obliterates with his tail all trace of his footprints, while one car is cocked forward and the other back; when he travels in company, he at every bound takes wonderful aim at the footprints of his predecessor, so that where a dozen have passed, it seems no more than one or two; he will even feign death. Captain Lyons, whose men caught a wolf in a trap, says, "the animal being to all appearance dead, the men proceeded to drag it aboard ship. The eyes, however, were observed to blink whenever anything closely approached them, so some precaution was considered necessary, and the legs being tied, he was hauled up head downwards. To our surprise he suddenly made a vigorous spring at those near him, and afterwards repeatedly turned himself upward, so as to reach the rope by which he was suspended, endeavouring to gnaw it asunder, and making angry snaps at the persons who prevented him. Several heavy blows were struck on the back of his neck, and a bayonet was thrust through him, yet above a quarter of a hour elapsed before he died."

The wolf's fondness for pork is something remarkable, and concerning the same a curious anecdote is related by Lieutenant Aldenburg. While standing at the edge of a frozen lake, he saw a large pig approach a hole that had been made in the ice, and commence drinking. While looking towards the horizon, the lieutenant saw some dark object scemingly no larger than a cricket ball bowling rapidly over the white snow; as he gazed, however, the ball increased in size, and gradually assumed the proportions of a wolf, evidently making for the unsuspecting porker at the top of its speed. Mr. Aldenburg loaded his gun and hurried to the rescue; but before he reached the spot, the wolf had come up with his prey, and, large as it was, tumbled it over easily. So intent was he on the banquet before him, that the lieutenant approached quite close, and despatched him with a bullet. A piece nearly a foot long had been torn out of the pig's flank, and the poor animal was so scared that he trotted home like a dog by his preserver's side.

That the wolf's ferocity is not abated by long confinement was painfully demonstrated at the Regent's Zoological Gardens within the last few months. A lady, lamentably ignorant of the animal's disposition, approached one of the wolf dens in which were confined a young and an old wolf, and placed her hand on the bars. In an instant the big wolf seized the thumb of the hand and drew it in, while the little one, eager for a share of the prey, took in his mouth the little finger; nor could the unfortunate lady be released till the finger was bitten off at the second joint, and the thumb so shockingly maulel as to render it uscless.





WOLF BY MOONLIGHT.

HOW THE WOLF IS TRAPPED AND HUNTED.

The Esquimaux, whose sledge, dogs, and reindeer are in hourly peril, construct an ingenious trap for this their most terrible enemy. It is, indeed, fashioned on exactly the same principle as the familiar square wooden mouse-trap, only that the sides and roof are made of slabs of ice, and the front, instead of being wire, is likewise of ice and slides up and down in grooves. The sliding front is raised and secured by a string which passes through the back of the trap, and is attached to a hook within the icy walls on which the bait is hung. At the very first nibble the transparent door is released and slides down with a crash, and the Esquimaux, leisurely knocking a hole in the wall of the trap just large enough to insert his spear, thrusts at the helpless wolf till it dies.

The common mode of hunting the wolf in regions where sledges can be used, is for a party to take with them their guns, plenty of ammunition, and a porker a few weeks old. As has been already mentioned, the wolf is particularly partial to young pig, and can't hear its tender voice without a violent hankering to make its closer acquaintance. Of this weakness of the wolf the sportsman makes capital, and, when the sledge is fairly started in the wilderness, applies his teeth, or digits, to the little pig's tail, till it squeals lustily. If wolves are about, out they come, and, boldly approaching the sledge, are easily picked off by the men with the muskets.

That this sport, however, is not always unattended by danger. was proved by a shooting party that set out from the neighbourhood of Forsbacka. The guns were loaded, the pig made to squeak, and, by-and-by, out came the wolves, and half a dozen of the pack were at once bowled over, and torn to fragments and devoured by their fellows. To the consternation of the hunters, however, they did not then retreat. Their appetites whetted with blood, the ravenous beasts came leaping boldly at the sledge, taking no heed of the shower of bullets by which they were assailed, and only a very few of the beasts lagging behind to eat up their stricken brethren. The driver lashed his horse to its utmost speed, which, after all, was but a miserable canter compared with the sinewy strides of the gaunt pack, who edged round the frail vehicle with glaring eyes and lolling tongues. To gain a little time, the pig was thrown to them. A little time, indeed! The porker was lapped up as quickly as red-hot iron laps up a sprinkle of water, and on they came again, and with such a yell that the maddened horse made a great plunge, and freeing himself of the trace-chains bounded away, leaving the sportsmen in an awful predicament. A moment wasted and they were all dead men and wolf-meat, but luckily a brilliant idea shot into the mind of the captain. "Load and fire all at once," said he; no sooner ordered than executed. and the wolves, for a moment scared, held off. "Now let us tura the sledge bottom upwards, and get beneath it;" it was accomplished instantly; and there they were boxed under the fragile machine, and clinging to it with all their might, to save it from being overturned by the mad and baffled pack who leapt at it and over it, and shook it with their disappointed fangs; and so the party remained till sought for and released by their friends.

One of the most thrilling recitals of wolf adventure is given by the author of "The Hunting Grounds" of the Old World," as it was related to him by an Abbassian chief with whom the writer in question fell in while hunting in Circassia.

During the winter of 1852, when the whole country lay covered with snow for months together, a force had been collected and sent out in the plains to harass and annoy the Russians, but having met with a reverse they scattered, and each tribe made the best of its way homeward. The party to which the narrator belonged, consisted of eleven men fairly mounted, and armed with matchlocks, pistols, and swords, with five prisoners—four Russian soldiers and a woman. As they were traversing a vast plain they perceived a pack of seven wolves slowly following them, of which number they killed two or three with their matchlocks, for the sake of the fur, and, dispersing the rest, continued their journey.

Shortly afterwards a strange howling noise was heard in the rear, which at first sounded like the roaring of the wind, but at length their attention was called to a dark mass of black objects spreading over the snow like a cloud on the horizon, and the full extent of their danger burst upon them, for they know they were pursued by a horde of wolves.

Their horses were already fatigued with a long day's journey, but terror seemed to give them wings, for they tore along as if they knew their peril, and for a while seemed to hold their own. The nearest hamlet was at least seven miles distant, and the ground was in many places so deep with drifted snow that their horses could hardly get along. The crisis was now evidently fast approaching, for the advanced troop were almost within gunshot, howling and yelling as wolves only can. A brief consultation was held, and it was determined to sacrifice the prisoners one by one, so as to gain time for the rest to escape. The woman met her fate first; one of their number, stepping behind, drew his sabre across the hocks of her horse, hamstringing it, and causing both to fall heavily to the ground. A terrible cry rang in their ears for a moment, and then all was still.

They anxiously looked back, and found that this desperate expedient had enabled them to gain considerably on their pursuers, but it was not for long; they were soon again on their heels, when a Russian soldier was sacrificed by shooting his horse; a second, a third, and fourth followed, and much time was gained, and a considerable distance covered; still their insatiable foes pressed on apparently more ferocious than before, for their appetite was whetted with the taste cf blood. They now commenced firing their guns amongst them, but it was of no avail, for although many fell the rest rushed on, and the course of the horde was not stayed. The horses of two of their number now gave up and fell with shrieks, as if they knew the fate that awaited them, and although their riders were swift of foot, they could not keep up their speed for any length of time in the deep

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snow, and soon became fatigued, so, bidding their comrades farewsil, they resigned themselves to their fate, drew their yatagans, and shouting their war-cry, died like men, fighting to the last.

The survivors were now within a couple of miles of shelter, but their horses were almost worn out, and the leading wolves hardly a pistol-shot behind; another moment and they expected to feel their fangs, when an old man, whose two sons were also present, seeing the hopelessness of the case, bade his comrades farewell, and shouting out the "imaum" (Mahommedan creed) as a death-song, felled his horse to the ground with the heavy butt of his pistol, as he could not rein up the scared animal, and offered himself a willing sacrifice to save the rest. On tore the survivors, now reduced to eight in number, and on followed their relentless pursuers, now again only half a dozen horselengths behind. In spite of all their efforts their doom seemed sealed and their case hopeless, when their chief drew his pistol and shot the man nearest to him through the head. He threw up his hands and dropped the reins, but although stone-dead he sat firm in his saddle, the affrighted animal carrying him till a second shot brought both to the ground.

Again the pursuit was checked for a time, and the desired hamlet appeared in view. They reached a wooden building erected for the succour of travellers in such peril as they were, and the door being luckily open, they rushed in and drew the heavy bar up across the inner side of the door. Suddenly, however, a heartrending shrick was heard from without, above the howling of the baffled wolves; and peeping through the chinks they saw one of their comrades, whose horse had broken down and lagged behind unperceived by the rest, surrounded by the wolves, and fighting desperately; a moment more and he was pulled from the saddle, both man and horse devoured before their eyes. Then the wolves surrounded the hut, and finding themselves baulked of their prey began to fight amongst each other, at times endeavouring to scratch away the earth under the logs, or force their way through the crevices, but the hut being substantially constructed resisted all their efforts, and a deadly discharge of firearms was kept up from the interior, which thinned their numbers and revenged the human victims; but the dead wolves were speedily devoured by their brothers, who remained howling and shrieking round the hut until the night of the second day, when a violent thunder

storm arose and they took themselves off in the dark, much to the relief of the six survivors, who, seeing the coast clear, made the best of their way to their homes.

While in Siberia, Mr. Atkinson was made acquainted with a great horde of terrible Russian wolves at midnight. With a company of Kalmucks he was encamped for the night on the open plain on the banks of a small lake. While the men huddled round the fire a distant and terrible howling smote their ears, and well knowing the cause, they collected their horses and looked to their fire-arms, though at the same time well aware that there was little hope of their ammunition, ever so well expended, outlasting the murderous desires of the approaching enemy who had from afar scented them. The camp fire was burning low, but at present it was not mended, the experienced Kalmucks knowing they would have a better chance if they allowed the gaunt pack to approach nigh enough to allow of a fair shot, and then piled on dry wood and raised the fire to a great blaze, at once bewildering the wolves and discovering their whereabouts. Presently the pattering of hundreds of feet in a swift gallop was heard, and then, the men making a blaze, there they were, brought suddenly to a halt, with ears and tails erect, and glaring as only a wolf can. At a signal a volley was discharged, wounding several of them, as their sudden shrieking and howling attested. In a few moments the hundreds of feet were heard beating a retreat.

But they were not yet vanquished, they had merely retired to consult as to the best mode of attack. Nor were their deliberations protracted. In a few minutes the snorting and whinnying of the frightened horses announced the reapproach of the savage army, and they could be heard stealthily coming up between the camp and the lake, and divided into two parties, so as to be able to assault the camp on both sides. Flitting over the snow, their savage eyes here and there twinkling in the darkness, the double troop came on, but again a shower of bullets brought them to a stand; this time, however they did not retreat, they merely halted.

At this critical time, with the darkness increasing, and five hundred pairs of fierce jaws surrounding them and hungering for their carcases, the devoted little band were horrified at hearing a sound that denoted the approach of a new pack of wolves. Now, indeed, did Mr. Atkinson and his men give themselves up for lost, but it was not

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to be, and, wonderful to relate, it was the extreme ferocity of their enemies that saved them. On the approach of the second troop, the first, by snarling and growling, betokened their jealous rage that these strangers should come to take the very meat out of their mouths after they had tracked it and been kept waiting for it. When the second pack came right up, the first, from snarling and snapping, took to teeth and claws, and in less than a minute the wolf battle became general, and so fierce and engrossing that neither party perceived a few of the Kalmucks steal off to return with a supply of fuel, which, piled on the dying embers, was soon converted into a huge bonfire. Roaring and crackling, and leaping high in the air, the savage brutes ceased war and looked aghast at each other, when a well-timed volley so increased their discomfiture, that, with a terrible howl, the wolfish company scampered off, leaving many dead and dying on the field.

After such voluminous "evidence for the prosecution," it is pleasant to find a witness who, although not pretending to excuse or palliate the enormities laid at the wolf's door, gives such testimony as to the wonderful tenderness exhibited by the animal under certain circumstances, that one is inclined to look on it much more favourably than hitherto. The witness in question is a reliable one, an officer in high position in the Indian army, and possessing unusual means of acquiring information. Six or seven years ago he wrote and caused to be published a pamphlet, from which the following curious stories are extracted.

"About seven years since a trooper in attendance upon Rajah Hurdah Singh, of Bondee, in passing near a small stream, saw three wolf-cubs and a boy drinking. He managed to seize the boy, who seemed about ten years old, but was so wild and fierce that he tore the trooper's clothes and bit him severely in several places. The Rajah, at first, had him tied up in his military gun-shed, and fed him with raw meat; he was afterwards allowed to wander freely about the Bondee bazaar. He there one day ran off with a joint of meat from a butcher's, and another of the bazaar-keepers let fly an arrow at him, which penetrated his thigh. A lad named Tanoo, servant of a Cashmere merchant then at Bondee, took compassion on the poor boy, and extracted the arrow from his thigh, and prepared a bed for him under the mango-tree, where he himself lodged; here he kept him fastened to a tent-pin. "Up to this time he would cat nothing but raw fiesh, but Tanoo gradually brought him to eat balls of rice and pulse. In about six weeks after he had been tied up, and after much rubbing of his joints with oil, he was made to stand and walk upright, whereas hitherto he had gone on all-fours."

So he remained for several months, during which he was taught to obey a few simple signs, to prepare the hookah, light the tobacco, &c.

"One night, while the boy was lying under the mango-tree, Tanoo saw two wolves creep stealthily towards him, and after smelling him they touched him, when he got up. Instead, however, of being frightened, the boy put his hand upon their heads, and they began to play with him, capering about while he pelted them with grass and straw. Tanoo tried to drive them off, but could not. At last, however, they left him, but the following night three wolves came, and a few nights after four, who returned several times. Tanoo thought that the two which first came must have been the cubs with which the boy was found, and that they recognised him by the smell."

The wolf-boy, however, could not be entirely reconciled to civilized life. In being removed from place to place he never lost an opportunity of endeavouring to escape into the jungle. At last Tanoo was sent away on a short journey, and when he returned his savage charge had disappeared, and was never again heard of. The next story I will quote from the pamphlet is even more wonderful than the above.

"In March, 1843, a cultivator who lived at Chupra, about twenty miles from Sultanpoor, went to cut his crop of wheat and pulse, taking with him his wife, and a son about three years old, who had only recently recovered from a scald on the left knee. As the father was reaping, a wolf suddenly rushed upon the boy, caught him up, and made off with him towards the ravines. People ran to the aid of the parents, but soon lost sight of the wolf and his prey. About six years afterwards, as two sipahees were watching for hogs on the border of the jungle, they saw three wolf-cubs and a boy come out from the jungle and go down to the stream to drink; all four then ran to a den in the ravine. The sipahees followed, but the cubs were already entered and the boy was half-way in, when one of the men caught him bý the leg and drew him back; he was very savage, bit at the men, and seizing the barrel of one of their guns in his teeth, shook it fiercely. The sipahees, however, secured him, brought him home and kept him for twenty days, during which he would eat nothing but raw flesh, and was fed accordingly on hares and birds. His captors soon found it difficult to provide him with sufficient food, and took him to the bazaar in the village of Koeleepoor, to be supported by the charitable till he might be recognized and claimed by his parents.

"One market-day, a man from the village of Chupra happened to see him in the bazaar, and on his return described him to his neighbours. The cultivator, father of the boy, was dead, but the mother asking for a minute description found that he had the mark of a scald on the left knee, and the marks of the teeth of an animal on each side of his loins. Finally, she went to the bazaar, and found in addition to these marks a third on the thigh with which her boy had been born. She took him home to her village, where he still remains, but, as in the former case, his intellect seems entirely gone; the front of his knees and elbows have become hardened from his going on all-fours with the wolves, and although he wanders about the village all day, he always steals back to the jungle at nightfall. He is unable to speak or to articulate any sound with distinctness. In drinking, he dips his face in the water, but does not lap like a wolf. He still prefers raw flesh; and when a bullock dies, and the skin is removed, he attacks and eats the body in company of the village dogs."

As to the wolf's motive for these friendly abductions, but one explanation can be given, and that one, unfortunately, entirely shears the affair of its romance. She-dogs bereft of their young have been known to adopt kittens, and no less reliable an authority than Mr. Jesse relates that a cat of his acquaintance, whose kittens had been destroyed, was seen to purr and mew at a cupboard door till a sleek mouse came out, and that then the cat lay down and the mouse cuddled down to its teats in the most natural way. So it may be that the she-wolf, losing her sucking cubs by accident, and being incommoded by her gorged udders, steals a child with the instinctive knowledge that it may be made to afford her relief. After all, then, those celebrated founders of ancient Rome, Romulus and Remus, *might* have been nurtured by a she-wolf, and I for one should not be loth to credit the story, only that I am assured by the very best authorities that the mistake arose from the simple fact of the nurse who suckled the two little Romans being named Lupa.

The wolf of America is at times remarkable for cowardice, though bold enough when pressed by hunger, or with other wolves. Mr. R. C. Taylor, of Philadelphia, states that this animal, when trapped, is silent, subdued, and unresisting. He was present when a fine young wolf, about fifteen months old, was taken by surprise, and suddenly attacked with a club. The animal offered no resistance, but, crouching down in the supplicating manner of a dog, suffered himself to be knocked on the head. An old hunter told Mr. Taylor that he had frequently taken a wolf out of the trap, and compelled it by a few blows to lie down by his side while he reset his trap.



SPOOR OF WOLF.



THE BOAR.

"OF all the animals in Indie killed by me," writes a celebrated hunter, "the tiger, wild elephant, buffalo, bison, bear, boar, panther, and leopard, not one has ever made

good his charge against the deadly bullets of my heavy rifles, or against the spear, save the wild boar and panther. . . . I consider hog-hunting to be the finest sport in the world."

It is the renowned Captain Shakespeare who makes the above declaration, and many other equally credible persons endorse his opinion. It is well that it is so, for undoubtedly contemplation of the domestic hog, gluttonous, fat, and sleepy, is calculated to impress one with the notion, that of all animals to be hunted he is the very last. What trace is there of thundering speed, eyes savage as those of a trapped tiger, and glowing as red-hot charcoal, of strength to rush beneath the horse's belly and bear him, with the hunter on his back, sheer off his legs; or of the terrible nine-inch-long tusk, which

THE BOAR.

entering the steed's flank, would plough a deep gory rut, ending only at the shoulder-bone-what trace is there of all this, in the meek, milk-white, Suffolk sow, affectionately cuddling her litter of tiny inqueakers, or grunting her gratitude to Roger who replenishes her trough, and rolling her little eyes with delicious languor as the worthy young wash-bearer, leaning dreamily over the wicket, scratches her back ? Nevertheless it cannot be doubted that the ancestors of this gentle, bacon-fated beast, roared in British forests when Britons all were hunters, and their deily labour, and that on which the bread of their children depended the fashioning of spears, and the wielding of them, and the manufacture of flint-hatchets, and the digging of wolf-pits. It was common at that period of Britain's history when a "swine-herd" was even more common than a shepherd, for rich folks to bequeath swine to their heirs and relatives, together with land for the maintenance of the same. In Sharon Turner's "History of the Anglo-Saxons" is quoted a document bearing the following clause: "I give for food, seventy swine in that woody allotment which the countrymen call Wolferdinlegh."

The form of the boar is so familiar to every one that to enter into details respecting its structure would be mere waste of valuable space. True, there is a difference between the appearance of the wild and domesticated creature, but it consists chiefly, if not entirely, in the bristles of the wild fellow being longer and coarser than his cultivated brother, in his eye being more restless and fiery, in his hide encompassing a mass of muscles and sinew instead of juicy fat and lean, in his shape being more lithe and active, and last, though by no means least, in the dovelopment of his tremendous tusks. I have, however, seen among a drove of Irish swine landing from the Dublin steamer, more than one that would pass without suspicion of dandyism among the most ferocious of the *Suidæ* family that ever roamed the gloomy thickets of Africa, or the Black_Forest of Germany.





HOW THE WILD BOAR IS HUNTED.

ENGLAND no longer possesses wild hogs. Civilization has reclaimed them from their savage state—a ring has been put through their noses, and they have become wedded to domesticity. In various parts of Europe, the boar still roams at large—in parts of France, and in considerable numbers in the interminable forests of Germany —but little or nothing is done in boar-hunting. India is the great tield for this sport, and the animals there found are certainly the largest and most formidable of any in the world. He roams the jungle, fearing not even the terrible tiger—crops his dinner at the verge of the auburn striped monster's lair, and comes down with him to the pool to slake his thirst; yet, that no affection exists between them is certain, from the fact that now and then sportsmen come across boars and tigers dead, the latter bearing marks of the wild pig's tremendous tusks. Even that terribly courageous member of the feline tribe, the panther, the wild boar holds in light estimation, and will not budge an inch from his path for the greatest vixen of this genus the jungle contains. At Morinnabad, on one occasion, a large boar was observed with his back to a tree, bayed by four fullgrown panthers. They, however, were afraid to commence the attack, and towards nightfall two of them sheered off, whereon the boar made a dash at the remaining two, and then trotted home, sound and unpursued.

Boar-hunting in India is always conducted on horseback, and the chief weapon employed is the spear. Different sorts of spears, however, are in favour in the various provinces. The Bengal hunter uses a spear not more than six and a half feet long, the shaft being of bamboo, weighted with lead at the upper end, and with a broad and stout blade. It is not used lance-wise, but held firmly in the hand in such a way that the point projects about a foot and a half before the stirrup-iron, so that, when the boar charges, the horse is dexterously swerved aside, and the animal runs on to the spear. This is known as the "jobbing" spear. In Bombay and Hyderabad the weapon runs from eight to ten feet in length, and is much lighter than the "jobber." This long light spear is carried "under-hand." "The secret of riding a wild hog," says a hunter of twenty-five years' experience, "is to ride as close to him as you can, keeping him on the spear or right hand of you. You must be able to turn your horse with the hog; and, therefore, the horse must always be in hand. In short, when the hog flags in speed, the hunter must be ready to make his horse spring upon him, so to speak. The spear ' then goes through the foe; and if the hog charges at the time, the increased impetus of two bodies meeting at such speed generally drives the spear through from end to end. It is a good plan when you are afraid of losing your hog among bushes and grass, to deliver a spear in him; it himpers his movements, and he cannot conceal himself in the jungle."

A thoroughly trained horse is essential to successful boar hunting.

Wherever a hog will go—even when hard pressed—there should the steed follow, up steep hills, down sudden slopes, over bushes, and along the face of rocks at an angle of forty degrees, and more slippery than metropolitan wood-paving in foggy weather. It is possible, however, to have too clever and impetuous a horse. Captain Shakespeare had one such; without spur or encouragement, it would follow the boar into the most impracticable places; when the boar leapt a rock, the horse leapt too, exactly as the chase went. When it is considered that, when hard run, the boar has been known to tuck in his feet and



fling himself over a bank fifteen feet deep, falling on his chest and up and off again in an instant, the disadvantage of mounting a horse who hunts boars for his own amusement will be apparent.

Speaking of the animal above mentioned, Captain Shakespeare says, •"I bought him at auction, at Hyderabad, for a hundred rupees—about nine pounds—and as for courage, I believe he would have faced a tiger. On one occasion, I had a long and severe run over rocks and grass after a wild sow which, on the second time of being speared, ran up the spear and fixed on the chest of this horse. He never moved for some time, till at length, I suppose, being convinced that I couldn't get the hog off him, he swung suddenly round, and the sow being a large tall one, this movement brought her alongside of him, when he lashed at her with his hind legs till she was disengaged."

As in Indian boar hunting there is generally as much racing as lighting, and the hunter's valour goes for nought unless he possesses such facilities as will make him more than a match for the fleet, tusked monster, a fast horse is indispensable. "At his first burst, the Indian boar will run away from the fleetest Arab racer." Therefore, care is taken to give the horse every possible advantage. It generally happens that the pasture-ground selected by the cunning boar is situated a long distance-ten, twenty, even thirty miles-from his stronghold. Setting out in the evening, he goes at a steady pace and reaches his feeding-place about the middle of the night; here he gorges, as only hogs wild and tame can gorge, sugar-cane or such other food as he fancies, and, strolling off, reaches home before daylight. This is the time to hunt him. He is full, tired, and sleepy, and altogether incapable of running his fastest. Indeed, it may take a great gang of natives with their tom-toms, bells, cymbals, horns, and other implements of hideous Indian music, to rouse him from his covert, and groused he must be, for to penetrate to his sanctum afoot-however perfectly armed-would be an act almost of suicide, and if a jury of grey-headed hog-hunters sat on such a body, their undoubted verdict would be "temporary insanity." When roused, however, the boar will make the best running he can, and here the hunter's horse has the advantage, for his master has taken care, after he has had his supper over-night, to put a muzzle over his mouth, and he is led out in the morning empty and light, and in a condition to go at the fastest pace he is capable of. The hunter's great aim is to "blow" his formidable game at the first burst and bring him to bay, well knowing that if he allows the boar to keep the lead till he recovers his wind, his hungry horse will flag and droop his ears while the game with his tail erect is still at a hard gallop.

The authority quoted at the commencement of this chapter relates an adventure that occurred to him while hunting in the Deccan, and which amply illustrates the high place the boar deserves in the list of wild animals worthy of chase, as well as its pluck and marvellous tenacity of life.

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While beating the sugar-canes for wild hogs, a few miles from Hingolee, a villager came up, and after inquiring what the captain was hunting for remarked, "If you want to see a hog, come with me and I will show you one;" and leading the way over the brow of a hill, pointed out an object in a field below that "in the mist of the morning appeared like a large blue rock-much too large for a hog." However, the "object" presently got on its legs, and dissipated any doubt existing as to its character. About a hundred yards distant from the animal was a fissure in the hills, thickly wooded, and here, no doubt, was the boar's lair, and if he took alarm and rushed thither it would be next to impossible to dislodge him. A savage boar in his stronghold is as difficult to oust as the grizzly bear from his winter cave in the Rocky Mountains. He constantly rushes out, knocks over and gores the beaters nearest the mouth of his retreat, and then skips back again before there is the shadow of a chance of spearing him.

All this Captain Shakespeare well knew, and thinking it possible that the boar might not run, he galloped round the field and placed himself between the boar and his retreat, and there waited with his companion-a native officer-till the beaters came up and endeavoured to drive the boar over the hill. "Standing as I was, behind a hedge considerably higher than my mare's head, I did not see the boar. The duffadar (native officer) was some thirty yards to my left, and looking over a lower part of the hedge shouted out, "Look out ! here he comes !" The mare was standing still, and I had but just time to drop my spear-point, which caught the boar in the rise, and the blade was buried in his withers. My mare, from her standing position, cleared with one bound the boar, spear and all, as this was carried out of my hand; then, suddenly turning, was in her stride after the hog. The hog had but seventy yards to reach the jungle, and just as he struck the first branch of the jungle with his back, breaking in two the shaft of my spear (which was still fast in his body), the duffadar closed with him. The boar having been missed by the spear ran under the duffadar's horse, and for thirty yards lifted him off his legs, plunging and kicking till the rider came to the ground. Fortunately we had three dogs with us; and having shouted to the people to let them go, they came up and took off the attention of the boar at the moment he was on

the duffadar, who had fallen on his sword and broken it, and was utterly helpless."

The next moment the boar made full tilt for his stronghold, the dogs following close at his heels. Armed with a fresh spear, the captain rode up the face of the hill, and from thence looking down saw the boar at bay and surrounded by the hounds, but in such a situation that it was impossible on horseback to go to the assistance of the dogs. At this moment one of the captain's beaters came running up with his heavy double-barrelled rifle, and being apprehensive that the hounds would speedily be slaughtered if not relieved, he took the gun and dismounting resolved to attack the boar on foot.

"Just as I got to the bottom, I saw the monster boar with his sack to a tree, and the three dogs looking very cautiously at him. He was about forty yards' distance from me. Directly he saw me, putting his head a little down to take aim, he came straight at me, increasing his pace from the trot to the charge. When about fifteen yards off he received the first bullet of my rifle in his neck. Taking not the least notice of it, he came on ; and the second barrel fired at him, at about five yards, broke his left under jaw-bone at the tusk. Fortunately I brought my rifle down to the charge, and, striking it with his head, the boar sent me over on my back. While running over me he made a glance, and wounded me in the left arm. Had I not put down my rifle-barrel at the moment, most probably his tusks would have been buried in my body. As it was, I had two shooting-jackets on, it being a very cold morning, and I suffered more from the jar than the wound.

"As I lay, I seized the end of my rifle-barrels, determined to sell my life as dearly as possible. To my delight, I must say, I saw the boar knock over the man who was running down with my big spear. He did not turn on either of us; for the boar is a noble foe, rarely turning, unless desperately wounded and unable to go on, to mutilate a fallen enemy. The dogs immediately tackled him, and permitted me, though almost breathless, to get up. The rifle-stock was cracked, and the pin that fastens the barrel into the stock much bent. Having put this to rights I loaded, and, proceeding in the direction the boar had gone, came up to within fifteen yards of where he had halted, and stood regarding me vengefully. Taking aim I sent a bullet through his eye into his brain, and rolled him over dead. . . . I have stated that the boar is the most courageous animal in the jungle. There he was; with a broken spear in his withers—the shaft sticking up a foot and a half from the blade —knocking over a horseman and wounding his horse; receiving two bullets—ten to the pound—the first in Lis neck and throat, the second breaking his jaw, and fired within a few feet of his muzzle; making good his charge, cutting down his enemy like grass, wounding him; knocking over a second man armed with a spear; defying the dogs; and then, when in the act of charging again, shot to the brain, and dying without a groan."



SPOOR OF BOAR.

While Du Chaillu was wandering through the wondrous forests of Equatorial Africa, he encountered a species of hog, at once the most hideous and comical object (at least so it appears pictured in his book) the world ever saw. "It is a very remarkable animal," says he, "attains a great size, and is conspicuous for a curious white face, adorned with several large warty protuberances on each side half-way between the nose and eyes. These and the singular long bristles which surround the eyes, and the long cars, ending in a tuft of coarse hair, have very curious effect. 'Ihe colour of the body is red.


THE POLAR BEAR.

THE BEAR.

THE dealings of the modern inhabitants of England with the "grizzly bear," although frequent, are by no means of a nature to convey to them an accurate idea of the animal in its natural condition. Thanks to pictorial bears' grease pots, we are familiar with the bear's shape, and for the shagginess of his coat we can vouch from having worn it over our own shoulders. As to his voracity, we may to a certain extent convince ourselves by visiting a zoological garden, and observing how greedily he snaps up the picnic biscuits thrown to him in his pit. In even more terrible aspect may the elderly amongst us claim to have seen him—a lean and mangy brute muzzled and chained, and made to dance in the mud by the application of thick sticks to his starting ribs.

He was not so meanly treated by our ancestors. By them his strength and fierceness were acknowledged, and a stone castle built tor his lodging. To bait him against savage mastiffs was thought fit game to set before the king, and to this end there were founded a Southwark, in Paris Gardens (still so called), two circular buildings somewhat after the style of the ancient Roman amphitheatre. The buildings were unroofed, and contained tiers of seats for the company. with a pit in the centre. The first mention of a bear garden is made by a poet named Crowley, who lived in the reign of Henry VIIL



The price of admission to the "Beare Baytinge" was, Mr. Crowley • informs us, one halfpenny; and that he did not approve of the sport is evident from the following lines :---

> "At Paris Garden each Sunday, a man shall not fail To find two or three hundred for the bearwards vale. One halfpenny a piece they use for to give, When some have no more in their purses, I believe. Wel, at the last day their conscience wil declare, That the poor ought to haue al that they spare. If you therefore give to see a bear fight, Be sure God his curse wil on you light."

In the reign of James I. the bear garden was, under the protection of royal patent, granted to the holders "for the sole practising and profit of the fighting and combating of wild and domestic beasts in England for fourteen years." Edward Alleyn, the celebrated actor and founder of Dulwich College, enjoyed this patent for several years ; and as, according to his biographer, his annual income from the bear garden alone was 500%, the great fortune he accumulated is at once accounted for.

The practice of granting a patent to the bear-master was checked in 1642. One Godfray was at the time patentee, and on there being a rumour that the office was to be abolished, the bear-master was proved by witnesses to have sworn "that he would cut the throats of those who did not sign a petition praying for the maintenance of the office." Whereupon a member of parliament moved that Mr. Godfray be committed to Newgate; and it was ordered, "that the masters of the bear garden, and all other persons who have interest there, be enjoined and required by this house that for the future they do not permit to be used the game of bear-baiting in these times of great distraction, till this house do give further order herein." That the house did give further order, or else that the bear-keepers took no heed of the "house." is evident from the fact that, in 1672, one Mons. Torevier wrote an account of his visit to the "Bergiardin by Sodark ;" · but judging from the foreigner's inaccurate way of spelling the place of exhibition, I should not like to reprint his description. At what period the Southwark bear garden was destroyed is unertain; but Stone, in 1720, speaking of Bear Alley, says, "On this spot is a glass house, and about the middle a new-built court well inhabited, called

Bear Garden Square, so called as built in the place where the bear garden formerly stood, until removed to the other side of the water, which is more convenient for the butchers and such like who are taken with such rustic sports as the baiting of bears and bulls."

The deference and respect with which the bear is treated by folks who have reason to hate him as their greatest enemy is very curious. When the Lap starts from his icy home to hunt grim Bruin, he does so with as much solemnity as if he were going to the funeral of a dear relation. When the bear is discovered, and the attacking party are driving at him with their spears, they the while chant a supplication hoping he will not take it amiss, and imploring him not to hurt them. The reindeer that draws home the dead bear is held sacred for a year, and allowed to do no manner of work. There is no such thing as rejoicing over the death of their enemy; they are afraid even to mention him by name, and allude to him when obliged as "the old man in the fur cloak." Their reverence, however, does not prevent them cooking the bear for supper; but not a word is said about the excellence of his flesh-all the talk is of the excellent moral qualities of the defunct beast, and of how extremely kind it was of him not to resist more than he did. Sir John Richardson relates a story of an old Indian and his wife, who, while sitting on the bank of a narrow stream, looked up to see a monstrous bear facing them on the other side. Having no weapon to attack the animal, the Indian made an appeal to its better nature. "Oh! bear," said he, "I never did you any harm; I always had the highest respect for you and all your relations; pray go away and do not molest us." And the bear went away, moved, as the Indian firmly believed, by his eloquence.

Sir Emerson Tennent relates that amongst the Singhalese there exists a belief that certain charms are efficacious in protecting them from the violence of bears, and that those accustomed to expose themselves to encounters carry a talisman either attached to their neck or enveloped in the folds of their hair. At the same time, Tennent relates an anecdote told to him by a sporting friend, showing how an unfortunate Moorman came to grief through placing implicit faith in a charm. "Desiring to change the position of a herd of deer, he (the Moorman) with his charm was sent across some swampy land to disturb them. As he was proceeding, we saw him suddenly turn from an old tree, and run back with all speed, his hair becoming unfastened and, like his clothes, streaming in the wind. It soon became evident that he was flying from some terrific object, for he had thrown down his gun, and in his panic he was taking the shortest line towards us, which lay across a swamp covered with sedge and rushes that greakly impeded his progress, and prevented us approaching him, or seeing what was the cause of his flight. Missing his steps from one hard spot to another, he repeatedly fell into the water, but rose and resumed his flight. I advanced as far as the sods would bear my weight, but to go further was impracticable. Just within ball range there was an open space, and as the man gained it, I saw that he was pursued by a bear and two cubs. As the person of the fugitive covered the bear, it was impossible to fire without risk. At last he fell exhausted, and the bear being close upon him, I discharged both The first broke the bear's shoulder, but this only made her barrels. the more savage, and, rising on her hind legs, she advanced with forceous grunts, when the second barrel, though I do not think it took effect, served to frighten her, for, turning round, she retreated at full speed, followed by the cubs. Some natives then waded through the mud to the Moorman, who was just exhausted, and would have been drowned but that he fell with his head upon a tuft of grass; the poor man was unable to speak, and for several weeks his intellect seemed confused. The adventure sufficed to satisfy him that he could not again depend upon a chaim to protect him fron. bears, though he always insisted that, but for its having fallen from his hair, where he had fastened it under his turban, the bear would never have ventured to attack him."





STRUCTURE OF THE BEAR.

THIS bulky representative of the *plantigrade* section of the carnivora differs from the rest of the family in the nature of his molar teeth, which, although they are compressed in form, are furnished with tubercular crowns, indicating that the animal is at least adapted for a partially vegetable diet. Indeed, as truly says quaint and clever Rev. J. G. Wood, nothing comes amiss to the bear, "a leg of mutton, a pot of honey, a potato cr an apple, are equally acceptable."

The feet of the bear are armed with formidable curved claws, equally handy to tear a carcase or dig up roots. With the horrible grizzly bear (his Latin appellation is *Ursus horribilis*), these claws possess the singular property of independent movement, each separate claw being as capable of distinct motion as the fingers of the human hand. Besides these crooked claws, the polar bear, that passes the chief part of its life on the glassy ite, is secured from slipping by having the soles of his feet covered with hair.

The amount of strength possessed by certain members of this family is prodigious. Take, for instance, the case of the grizzly bear, who will bear off a bison weighing a thousand pounds. Any one who has seen a bear climb a pole must at once have been struck with the ease with which the heavy, thickset brute ascends. It is during this performance that the wonderful mobility of the brute's hinder limbs becomes apparent. Watching how deftly the great limbs wind about the pole, and with what small effort the ponderous carcase is raised, one no longer wonders at the marvellous feats accredited to them.

The polar bear, whose home is the solitary waste that flanks the Northern Seas, and whose prey is the seal and walrus, equals in size and strength the grizzly bear of California; indeed, Lamont, who has but recently returned from an Arctic exploration, during which he had frequent opportunities of making the acquaintance of Ursus maritimus, asserts the animal in question to be "the largest and strongest carnivorous animal in the world:" moreover, he was informed by several Spitzbergens that a full-grown polar bear would attack and kill a bull-walrus three times his own size, the bear's hunting tactics being to conceal himself behind an ice-hillock, and watching till the walrus came floating past, spring on its back, and holding on by its teeth to the creature's neck, batter in its skull with repeated blows of its tremendous fore-paws.

According to many capable writers, among whom may be counted Mr. Darwin, "the polar bear appears to be nothing more than a variety of the bears inhabiting Northern Europe, Asia, and America; and it surely requires no very great stretch of imagination to suppose that this variety was originally created, not as we now see him, but by individuals of Ursus arctus in Siberia, who, finding their means of subsistence running low, and pressed by hunger, ventured on the ice and caught some seals. These individuals would find that they could make a subsistence in this way, and would take up their residence on the shore, and gradually take to a life on the ice. Polar bears, in the present day, are often carried on the ice to Iceland, and even to within swimming distance of Northern Norway, so that it is not impossible that the brown bears, who, by my theory, were the progenitors of the present white bears, were accidentally driven over to Greenland and Spitzbergen by storms or currents. Individual bears of Ursus arctus are found frequently of a silvery grey colour, and such bears are known in Norway as 'silver bears.' Then it stands to reason that those individuals who might happen to be palest in colour would have the best chance of succeeding in surprising seals, and those who had most external fat would have the best chance of withstanding cold. The process of natural selection would do the rest, and Ursus dretus would, in the course of a few

thousand or a few million of years be transformed into the variety at present known as Ursus maritimus."

"It may be urged," continues Lamont, a disciple of Mr. Darwin, "that there is no reason, if this theory be true, why brown bears are not still occasionally taking to a polar life, catching seals and turning white. The answer is easy; the ground is already occupied by the variety of bears formed by nature, acting through the process of natural selection, for catching seals. The seals are so shy, that even the existing white bears have a difficulty in living; and a brown bear, although he may eke out his means of subsistence by occasionally still catching a seal on the shores of Siberia, would have no chance of succeeding in the struggle for life if he were to set off on a seal-hunting expedition, and to enter into competition with his white congeners, who are already formed and fitted by nature, through countless generations, for that particular mode of life." "Easy" and simple, however, as is the "answer," it may scarcely be considered as conclusive. In my humble opinion, it seems that no end of argument contradictory of the above theory might be adduced, not the least important being, that, when the "brown progenitor of the present white bear" was stranded by accident on the Greenland coast, he need not have gone hungry till he learnt the art of seal-catching; reindeer abound in Spitzbergen and thereabouts, besides foxes, and multitudes of gulls, fulmars, and eider-ducks, whose eggs, abounding in every rocky crevice through the length and breadth of the land, would certainly make a hungry bear pause before he ventured his carcase on a piece of drift ice on a fishing excursion.



HABITAT OF THE BEAR.

THE grizzly bear is the largest and most formidable of his tribe.

and abounds throughout the Rocky Mountains and the plains east of them. From nose to rump (it has no tail worth speaking of) this animal, full grown, measures from eight to nine feet, and weighs about eight hundred pounds. His strength is tremendous. Mr. Dougherty, a celebrated hunter, had shot a bull-bison, and having marked the spot, set off for the purpose of getting assistance to skin it and cut it up. When he returned, however, the bison was gone ! Quite sure that he had left it dead, the men set about searching for the carcase, and presently found it at a considerable distance buried in a pit; and that the pit had been scratched out, and the dead bison conveyed thither by a grizzly bear, was evident from the "spoor" plainly indented in the moist earth. "This propensity to bury the dead it may make or find is very peculiar. Bear hunters suldenly overtaken by this animal have stretched themselves along the earth and feigned death, and the shaggy sexton has immediately scraped out a shallow grave, bundled in the man shamming death, and covered him with earth. So the cunning hunter escapes—unless indeed the grizzly bear should take a fancy to tread down the mound! It is said that wolves, however famished, will not touch a body buried by a grizzly bear, though they will greedily devour any and the vilest offal that they chance to meet.

Another peculiarity of the grizzly bear is, that he does not *hug* his prey. His claws are broad, of great length, and cut like a chisel. Eyeing the object of attack intently for a moment, it rushes at it, rears, and strikes with its tremendous fore-paw. Sir John Richardson mentions the case of a hunter who was completely scalped; the skull being laid bare, and the hair turned right over the face, by a single pat of a grizzly bear's paw.

Judging from Tennent's account of him, the Singhalese bear, if let alone, is not such a very bad fellow, studiously avoiding the paths of men, and content, while allowed to roam the forest fastnesses, hunting for honey in the hollow trees and clefts of the rocks, or grubbing up ants and termites. "His solitary habits render him timid and retiring. Hence he evinces alarm on the approach of man, or other animals; and unable to make a rapid retreat, his panic rather than his vicious disposition leads him to become an assailant in self-defence. But so furious are his assaults under such circumstances, that the Singhalese have a terror of his attacks greater than that occasioned by any other beast of the forest. If not armed with a gun, a native in the places where bears abound usually carries a light axe with which to strike them on the head. The bear, on the other hand, always aims at the face, and if successful in prostrating his victim, usually commences by assailing his eyes. I have met numerous individuals in our journeys who exhibited frightful scars from these encounters, the white seams of their wounds contrasting hideously with the dark colour of the rest of their bodies."

The bear of India is equally harmless "when let alone," and despite his omnivorous nature is happy with a profusion of honey, berries, and white ants. When "roused," however, he is a tartar, and from his enormous size and agility one of the most terrible of beasts. The particulars related by Mr. Lamont attending the capture of two orphan polar bears is curious, and worth relating, as affording one more instance of the wonderful affection of the most ferocious of brute creatures for its little ones.

The two Arctic huntsmen, after a hard day with the bears and walruses among the icebergs, returned to their vessel, and retired to bed. They had not lain two hours, however, before the watch on deck came with the news that three bears were at that moment taking a nocturnal promenade on a little ice island a short distance off. Tired and sleepy as were the hunters, the opportunity was too splendid a one to be lost, especially as, according to the hunters' experience, bears were the least plentiful of the large game abounding in the neighbourhood. The watch, who had observed the animals through his glass (there is, of course, no such thing as a *dark* summer night in the region in question), declared them to be an old bear and two cubs, and that they were making their way to a spot where lay the disrobed carcase of one of their own species shot some time before.

"We had a row of several miles along the shore before we overtook the bears, and at last discovered them seated on a strip of land ice. Lord Kennedy then agreed to get out, and by running try to cut them off from the hills, while I should continue in the boat, and row as fast as possible up to the edge of this ice, in case they should take to the We got to within about five hundred yards of the bears before sea. they perceived us. The old one stood up on her hind legs, like a dancing bear, to have a good look at the boat, and a moment's inspection seemed to convince her it was time to be off. She set off at the top of her speed, with her two cubs at her heels, along the smooth surface of the ice. My companion, although an excellent runner, could not keep up with them, so he got into the boat again, and we rowed with might and main to keep in sight of the bears; but they got far ahead of us, and we began to think they would beat us, when luckily they got to the end of the strip of smooth 'fast' ice, and before them lay a great expanse of soft mud, intersected with numerous little channels and with much rough ice, left by the tide aground amongst it. This seemed to embarrass them very much, as the cubs couldn't jump over the channels, and the old bear appeared to be getting very anxious and uncasy ; but she showed great patience and forbearance with her cubs. always waiting, after she had jumped over a channel, until they swam

across, and affectionately assisting them to clamber up the steep sides of the rocky places; nevertheless, the mixture of sticky mud with rough ice and half-frozen water soon reduced the unhappy cubs to a pitiable state of distress; and we heard them growling plaintively, as if they were upbraiding their mother for dragging them to such a disagreeable place.

"We had got the boat into a long narrow channel among the mud, which contained water enough to float her, and we were now rapidly gaining on the bears ; when all of a sudden, the boat ran hard aground, and not an inch farther would she go. This seemed as if it would turn the fate of the day in favour of the bears, as we did not think it possible to overtake them afoot among the mud; but there still remained the chances of a long shot, as the boat had grounded within two hundred yards of the animals. Lord David fired, and struck the old bear in the back, paralyzing her; we then scrambled through the icy mud up to where she lay, and despatched her. The cubs, quite black with mud and shivering with cold, lay upon the body of their mother, growling viciously, and would not allow us to touch them, until the men, bringing a couple of walrus-lines from the boat, threw nooses over their heads and secured them tightly, coupling them together like a brace of dogs. They were about the size of colley-dogs, and no sooner did they feel themselves fast, than, quite regardless of our presence, they began a furious combat with one another, and rolled about amongst the mud, biting, struggling, and roaring, till quite exhausted."

Willingly would I here leave the question as regards the affection displayed even by grim polar bears one to the other, but justice compels me to state a shameful fact in the case of the two little bears above discussed. Let the narrator of the generous she-bear's story himself furnish the reader with the scandalous termination to the Arctic tragedy as witnessed by him.

"I am sorry to have to record the most horrible case of filial ingratitude that ever fell under my observation. Without doubt, the old bear had sacrificed her life to her cubs; she could have escaped without difficulty if she had not so magnanimously remained to help them. When, however, we proceeded to open the old bear for the purpose of skinning her, the two young demons of cubs—having by this time settled their differences with each other—began to devour their unfortunate and too devoted parent, and actually made a hearty meal off her. When we finished skinning her, the cubs sat down upon the skin, and resolutely refused to leave it; so we dragged the skin, with the cubs sitting on it, like a sledge, to the boat, and after another tussel with them, in the course of which they severely bit and scratched some of the men, we got them tied down under the thwarts of the boat, and conveyed them on board the sloop. . . . In the course of the day we got a sort of crib made for them on deck out of some spare spars and pieces of drift-wood, and while they were being thrust into it they resisted so furiously, that one could almost imagine that they knew they were bidding adieu for ever to the fresh breezes and icy waters of Spitzbergen."



SPOOR OF THE POLAR BEAR



HOW THE BEAR IS HUNTED.

LET us begin with that terrible fellow, the grizzly bear of North America. Unlike the remainder of his tribe, he has no fear of man: on the contrary, indeed, should he encounter a human being he will give him chase and keep on his track, with the greatest perseverance, for hours. An American traveller relates that he was followed nearly thirty miles by a grizzly bear, and only succeeded in shaking off his hungry pursuer by swimming a broad and deep river. Moreover, so marvellously tenacious of life is this monster, that according to reliable authority he will resist the hunter's assaults till not six square inches of sound hide remain on his carcase. Therefore it becomes advisable for hunters of bears' meat and skins to adopt some other system than that of open warfare. They manage pretty much as follows :—

The grizzly bears live in deep and retired caves, to which they retire for the winter after having revelled for a few weeks on autumn berries, and grown very fat. When the season has become so cold as to reduce the bear to a state of complete torpidity, the bear-hunter sets out, armed with his deadly rifle, some inatches, and a candle composed of wax, softened with bear's grease. This candle, provided with a broad wick, burns with a brilliant white flame. Having discovered by unfailing signs a cave in which a bear is hidden, lighting his candle and carrying it in one hand, while he grasps his gun in the other, the hunter gropes his way into the deep den. The light reveals his game surled in a shaggy ring in a distant cerner; he plants his candle on

the ground, about the centre of the cave, and then retiring to the entrance, cocks his rifle, and waits. He is not detained long. In a few moments the grim sleeper, roused from his bearish dreams by the glare, wakes, fixes his eyes on the flame with a puzzled, sleepy expression, and finally yawns, gets on his legs, and shuffles towards it for a closer inspection. Now is the time. The grizzly monster is as tenacious of life as a cat, and as swift as one when wounded and bent on revenge; therefore it is of the first importance that if he fire at all it be with deadly aim. Slowly the bear approaches the candle, till he is so close that its rays light up his savage eyes like two dusky red stars. One of these dusky stars the hunter covers with the muzzle of his rifle, and instantly there arises a double roar-that of the discharged piece, and that of the stricken beast; and lucky hunter he if both roars subside together, leaving him to skin his game by the light of the trusty candle.

That this mode of hunting the bear is not unaccompanied by peril, the following story, selected almost at random from a hundred such, will sufficiently illustrate. A large bear was tracked to a cavern, and every effort made for three days without avail to smoke or burn him out. At length one of the hunting company boldly declared that " if the bear would not come out, he would go in to the bear." The entrance to the monster's den was a slanting, well-like hole, that descended about ten feet, but beyond that from the exterior no more could be seen. A rope was passed round the waist of the adventurous bear-hunter, a butcher's knife stuck in his belt, his musket well primed, and loaded with two ounce bullets, and in each hand he bore a long pine lath, pierced at the end so as to hold a The candles were lighted, and the man lowered into the hole candle. by his companions. At the bottom of the well-hole he discovered a little lane, turning sharply off at right angles, about six feet in length, and terminating in a small round chamber where the bear had taken up his quarters. The hunter's tactics were ingenious, but frightfully perilous. Lying on his back, in the narrow lane, he pushed along the candles with his feet, and so wriggled himself along into the bear's parlour, grasping his musket the while, and prepared to shoot as soon as the candle-flame should reveal two twinkling eyes. Presently his mates heard a bellowing crash, and, as prearranged, hauled in the rope just in time to haul the man out of the clutches of the wounded bear, who pursued him to the very mouth of the chasm.

The bear, however, retreated to its den again, and there was no alternative but to leave the work altogether undone, or begin again. The former seemed the most prudent plan, but the brave hunter would not hear of it. He had, he said, aimed fairly at the bear's eyeballs, and if not dead, she must be mortally wounded. That she was not dead, however, was certain, for at intervals came a painful moan from the dark hole. Fresh equipped, down went the bold hunter once more. Again the cavern re-echoed the crash of his bullets, and again strong arms jerked up the adventurer by the rope about his waist. This time, however, the bear seemed determined not to let her assailant go Roaring with agony, and deluged with a red stream, she came free. close at his heels, and as he was hoisted up, leapt after him, and reached the rock where the men stood. A scrambling volley was fired at her, but with no effect, and then the man, with the rope still about him, drew his butcher's knife and rushed to close with the bear in single combat; but the poor animal was in no condition for fighting. The effort of rearing to meet her antagonist was too much, and sho rolled over dead.

Gerstäcker tells a terrible bear story. He was engaged with one or two companions, and a gang of professional Indian hunters, seeking bears in the depths of a great American forest. Very little luck attended the party during the early part of the day, so they divided in twos and threes, and spread themselves abroad in hope of beating up game. Gerstäcker and a young man named Erskine, accompanied by five dogs-one of which belonged to the narrator, and was named "Bearsgrease"-hunted together. Still for a long time their luck showed no signs of amending, till by-and-by the loud baying of the dogs, that had trotted on ahead, announced that game of some sort had been brought to a stand. Hastening to the spot, the hunters discovered an enormous bear reared on its hind legs and fighting with the dogs like a demon. Four of them were already lying dead on the ground, and Erskine, exasperated at this wholesale slaughter of his canine friends, flung down his rifle, and drawing his hunting knife, rushed at the bear with the intention of making "short and sure" work of him. Maddened, however, by the terrible grips it had received from the hounds, Bruin instantly gave battle to his new assailant, and before the latter could deal him a blow, had him fast locked in his tremendous arms. Eager to rescue his friend, Gerstäcker bounded forward, and made two or three indiscriminate lufiges at the

bear's body; when the animal, without relaxing his terrible hold of Erskine, dealt our German friend a stroke with his mighty paw and felled him senseless to the earth.

Hours after, the German hunter was awoke by a tickling sensation across his face, and opening his eyes, discovered his faithful dog "Bearsgrease" whining over and caressing him. Still half unconscious, he raised himself on one arm and looked about him; and there within a few feet of him lay the crushed form of Erskine, and beside him the shaggy monster, the blood still welling from the many gashes in his body, which was so saturated as to make him look like a red and not a brown bear. Besides these, the bodies of five dogs lay about the great bear and its victim.

Giddy from loss of blood and the agony of a dislocated shoulder, Gerstäcker, who was benumbed with cold, set about making a fire. This he accomplished by tearing off a part of his hunting-shirt, rubbing some gunpowder into the rag, and igniting it with a flash from his rifle. "Blowing it up to a flame, I piled on dry leaves, twigs, &c., and succeeded in making a good fire, though with great pain and trouble. It was now dark. I went to my dead comrade, who was lying about five yards from the fire; he was already stiff, and it was with great difficulty that I could pull down his arms and lay him straight; nor could I keep his eyes closed, though I laid small stones on them.

"The dogs were very hungry, but as it was impossible for me to break up the bear, I only ripped him up, and fed them on his entrails. Bearsgrease laid himself down by the corpse, looked steadfastly in his face, and went near the bear no more. In the hope of obtaining help I loaded and fired my rifle twice, but without any result; the forest appeared one enormous grave.

"I felt very ill, vomited several times, and my shoulder was excessively painful. Winding my blanket about me as well as I could, I laid myself beside the fire, and lost all consciousness of my situation. Whether I slept or fainted is more than I can tell, but I know that I dreamed that I was at home in bed, and my mother brought me some tea, and laid her hand on my breast; I heard the children in the street making a noise, and saw the snow on the roofs off the houses, and thought it must be very cold out of doors.

"Such an awakening as I had was worse than I could wish to my bitterest enemy. Bearsgrease had pressed close to my side, laying his head on my breast, the fire was almost out, I was shivering with cold, and the wolves were howling fearfully around the dead, keeping at a distance for fear of the living, but by no means disposed to lose their prey. I rose with difficulty and laid more wood on the fire. Louder and fiercor howled the wolves; and the dogs, five of whom were alive besides Bearsgrease, answered them. Partly to scare away the wolves, and partly in hope of finding help, I loaded and fired till my powder was expended, and to my inexpressible delight I heard shots in return. As morning broke I heard two shots fired, and then a third, and shouting lustily a human voice answered me, and the next moment I heard the startled 'Wah!' of the foremost Indian, as his eyes encountered the terrible spectacle."

In Sweden abounds the big brown bear, who makes periodical raide on the different districts. When this is the case, the minister from (is pulpit gives public notice of the fact, and likewise names an early way for a great hunt. According to the presumed number of the bearish horde, so the inhabitants turn out—sometimes as many as fifteen hundred being so employed. Their hunting tactics are of the most primitive sort, being indeed such as are practised by savages of the remotest regions. They spread themselves abroad armed with guns or axes till a living ring encompasses the infested district, and then they gradually "close in," driving the bears to the centre and compelling them to fight for their lives, or succumb without fighting. This latter, however, is seldom the result, for the bear is no cur, and when driven to extremes will fight to the last gasp.

Mr. Lloyd tells a good story of a bear fight that happened in these regions. The hero was a veteran huntr named Jan Svenson, who had waged war with the big brown bear all his life, and before whose musket at least seventy grizzly monsters had fallen. On the occasion in question, Jan and his cor panions surrounded the lair of a huge bear, and a dog was sent in to rouse him. The bear was ripe for fight, and on the first challenge bounded out, and ⁵ lelled one of the peasants to the ground, mauling him in an ugly vay. Jan Svenson made a shot at him, and rolled him over so decidedly that the old hunter thought he had killed him, and stood carelessly reloading his piece. Without an instant's warning, however, and before the gun was half loaded, the bear recovered his senses, sprang to his legs, and seized Jan by the arm, while Jan's dog, seeing his master's peril, flew at the animal, and fixed his forgs in its hind-quarters. To get rid of



THE MORNING AFTER THE BATILE

this second antagonist, the bear—still keeping the man's arm between its vice-like jaws—threw itself on its back, and struck at the dog with its disengaged paws. Beat off for a moment, the good dog returned to the rescue with such fury, that Bruin was fain to quit his hold of Jan the better to defend itself. Not for an instant, however, did it leave the prostrate hunter, but stood over him alternately gripping various parts of his body with his teeth, and making dashes at the hound. So the game lasted for nearly half an hour, till, weakened by the blood that all the time was flowing from the gunshot wound Jan had administered, the bear staggered to a neighbouring tree, seized the trunk convulsively between his teeth, and rolled over dead, leaving poor old Svenson more dead than alwe, and bitten in thirty-one different places, chiefly about the arms and legs. For the defeat and death of one of those tremendous fellows—the great black bear of India—as well as for a wonderfully graphic account of the same, we are indelted to a gentleman frequently quoted in this volume, the "Old Shekarry."

"The herdsman led the way, and under his guidance we climbed, in Indian file, a steep rocky hill, which caused us to puff and blow, and made our knees tremble before we got to the top, where by dint of creeping along on our hands and knees on the edge of break-neck precipices, and hanging on to perilous ledges, we managed to work our way along the crest until we came to a deep rocky ravine, which appeared to have been denuded of the dense bush that generally covered the face of the country. Here our guide assured us the lair was, and indeed it looked a likely place to meet with queer customers, for in all my peregrinations I never saw a wilder country.

"After an hour's careful investigation, as I was crossing a patch of sand, I perceived the fresh footprints of a bear, which I instantly saw must be a very large one, from his long stride and the size of his pugs, my hand hardly covering them. I followed up the trail for some distance, but lost it on some rocky ground, and was making casts in different directions in order to regain it, when some of the Bey's dogs, which had gone on some distance ahead, gave-tongue, and immediately after I heard a sullen roar, followed by four or five dropping shots. I sprang upon a boulder of rock, and discovered an enormous bear, in full pursuit of four or five Abbasians, who were running shrieking up the hillside about two hundred yards distant. One of them in his frantic flight tripped over a stone, and before he could rise the brute was upon him.

"Although the hind-quarters of the animal only were presented to me, I threw up my rifle and let drive. Whether it was that my hand was unsteady that morning, or that I feared hitting the man, I know not, but the first bullet fell short; the second, however, struck fair, and the bear, with a sharp hoarse cry of pain, quitted the fallen man and again made after the rest. I reloaded as quickly as possible, and ran up towards the wounded man, when I again saw Bruin for a moment, and got a couple of snap shots at him as he bolted into some cover, having been turned by a straggling volley from some of my gang and the Bey's people. I found the youth who had fallen into the bear's clutches severely bitten in the shoulder, beside having his side clawed, and being considerably bruised and shaken, though not dangerously hurt; so after bandaging his wounds as well as I could, I collected the people together and prepared to make another -effort to drive the bear from his shelter.

"One of my people had seen him enter some thick underwood, between two large rocks, and I tried to coax the dogs to go in and drive him out; but it was of no use, they only ran yelping round the thicket. Two of their number had been killed in the first onset, and some of the others severely mauled, which damped the courage of the rest; so finding that nothing could be effected with their assistance, I posted all the people in groups as safely as I could at one end of the cover, in case the game might break without showing fight, and followed up the trail, which was very plainly marked with blood, alone.

"I peered through the bush, but could see nothing; so resting my rifle against the trunk of a tree, I endeavoured to swarm up, in order to have a better look round. I had hardly raised myself a couple of feet from the ground, when, with a terrific roar, the brute, which must have got wind of me, charged. Luckily the bush was so thick in front that he could not get at me very easily, but had to make a turn, which gave me time to seize and cock my rifle, and as his monstrous head, with flashing eyes and open jaws, appeared, about a couple of paces from me, I gave him the contents of both barrels, which almost stunned him, for he spun round and round, and I had time to follow it up with my smooth-bore, both bullets taking effect in the head, but such was the enormous tenacity of life that he managed to tear out of the cover, rolling over and over as he went.

"After reloading carefully I followed up and found him sprawling about on the ground, moaning piteously. As I got out of the bush he caught sight of me, and made another headlong charge, reeling from side to side as he came; but I stopped him with another bullet in the head, which made him bite the dust. He rose again and got up on his hind-legs as if to look wound, and whilst in this position he looked a fearful object, standing as he did with his fore-paws raised about seven feet high, and the blood pouring in torrents from his mouth. I now had a fair shot at his chest, and inflicted a mortal wound, for he rolled over and over, making his teeth meet in the root of a tree with his last dying effort. He proved to be the largest bear I ever met with, standing over four feet high at the shoulder, and from the number of men it took to lift him, I should think he could not have weighed less than eight hundred pounds."

That polar bears are anything but numerous, even in their actural breeding and abiding places, is evident from the fact that through an entire summer (1859) passed by Mr. Lamont and his hunting companion, Lord Kennedy, in and about the Northern Seas, but eight bears fell to their rifles, that being, with the exception of three, the whole number seen and pursued; and that they were not novices in the art of hunting is proved by the fact that ouring the summer they "bagged" forty-six walruses, eighty-eight seals, and sixty-one reindeer. One bear slain by Lamont was an enormous fellow. He measured upwards of eight feet in length; almost as much in circumference. He was four and a half feet high at the shoulder; his fore-paws were thirty-four inches in circumference, and tipped with long, sharp, and powerful nails; his coat was beautifully thick and snow-white, and hung several inches below his feet. The skin alone of this animal weighed a hundred pounds, the entire carcase twelve hundred, and the pure fat stripped therefrom weighed nearly four hundred pounds.

Mr. Lamont gives the following graphic description of the chase and defeat of this enormous animal: "Sitting in the bow of the boat I saw a dull-white object on the shore, and by applying the glass I made it out to be a large bear, evidently sniffing his way up the wind to the carcases of the three seals which I had shot first in the morning, and which I had left on the ice on the western side of the fiord. The bear, when we first saw him, was about a mile distant, and the carcases lay about halfway between him and the boat. We rowed as fast as we could towards the carcases, and pushed the boat into a little creek which fortunately existed in the edge of the ice, eighty yards on our side of the dead seals. The bear was still snuffing about on the land, and had not perceived us yet, and the boat being quite white, like the ice, it was not likely he would now do so if we kept still. I made all the men crouch down in the bottom of the boat, while I alone watched the motions of Bruin by peeping over the gunwale through a large double-barrelled opera-glass, which I generally carry in preference to a telescope for sporting purposes, on account of ' its greater quickness.

"The bear walked slowly and deliberately for some two or three hundred yards on the ice, as if uncertain whether he should go up to the dead seals or not. How earnestly I prayed that he might not have had his dinner! Shortly he appeared to make up his mind that a seal supper would be exactly the thing for him, and sliding sternforemost into the water he swalm steadily and quietly along, close under the edge of the ice, towards the carcases.

"When the bear came close opposite to the dead seals he peeped cautiously up over the edge of the ice, and then perceiving that they were not live seals, he scrambled out quite coolly, and began to shake the wet from his shaggy coat, like a Newfoundland dog. The instant he concluded this operation I fired and smashed one of his shoulders. He fell on his face on the ice, growling savagely and biting at the wound. According to a preconcerted arrangement, I instantly sprang out on the ice and ran towards the bear, while the boat started to meet him in case he should take to the water. While I was running the bear got to his feet, and at first showed an inclination to fight it out, as he advanced a few steps to meet me, growling most horribly and showing his teeth; but on my approaching a little nearer he seemed to think discretion the better part of valour, for he fairly lost heart and scuffled precipitately into the sea. I shot him as he swam away, and the boat coming up immediately they got a noose round his neck and towed him to the ice. He was so large and heavy that we had to fix the ice-anchor and drag him up with block and tackle as though he had been a walrus."

At the conclusion of his trip Mr. Lamont returned to England, bringing with him a tremendous cargo of seal, walrus, bear, and reindeer hides, besides bear's fat, and two young polar bears. One would have thought the interesting creatures would have experienced little difficulty in finding an asylum here, but, as an Irish M.P. lately observed, "we are the neatest hands at bungling of any country in the world;" and we refused to entertain the Arctic strangers. To, use Mr. Lamont's own words, "I entered into correspondence with nearly every wild-beast keeper and secretary of zoological gardens in the United Kingdom, but, as usual, the 'British market was quite overstocked.' There was a 'glut' of bears, in fact. Eventually I disposed of them to the Directeur of the Jardin des Plantes, and I heartily wish his Imperial Highness joy of his bargain. I had the satisfaction of seeing them some months later, considerably grown, but their naturally amiable dispositions not improved by their being confined in one of the warm, dry dens, used for the tropical carnivora."



SKELFION OF OSFRICH.

STRUCTURE OF THE OSTRICH.

Tuis feathered giant, which from its formation would seem a kind of connecting link between the two great families of aves and mammalia, inhabits the plains of Africa as far east as the deserts of Arabia. Tn the Indian Archipelago its representative exists in shape of the stately cassowary; while the western hemisphere furnishes the rhea, and Australia the emu. At the Rio Negro, in Northern Patagonia, where the common ostrich abounds, Darwin heard the natives speak of a very rare bird, which they called Avertruz Petise, and they described it as being shorter in the legs and feathered lower down than the common ostrich, and of a dark and mottled colour. The eggs of the small species were said to be nearly as large as those of the rhea, but of a different form, and with a tinge of pale blue. In the Museum of the Zoological Society there is a specimen of the petise, and if ever a poor body nearly escaped the doubtful honour of stuffing, it was the bird in question. Says Mr. Darwin, "When at Port Desire



in Patagonia, Mr. Martens shot an ostrich; and I looked at it, forgetting at the moment in the most unaccountable manner the whole subject of The petises, and thought it was not a full-grown bird of the common sort. It was cooked and eaten before my memory returned. Fortunately, the head, neck, legs, wings, many of the larger feathers, and a large part of the skin had been preserved, and from these a very nearly perfect specimen was put togother." Dobrirhoffez, however, who a hundred and twelve years ago published an "Account of the Abipoues," was aware of there being two kinds of ostriches. He says, "You must know, moreover, that emus differ in size and habits in different tracts of land; for those that inhabit the plains of Buenos Ayres and Tucuman are larger, and have black, white, and grey feathers : those near to the Straits of Magellan are smaller and more beautiful, for their white feathers are tipped with black at the extremity, and their black ones in like manner terminate in white."

When full grown, the African ostrich stands as high as from seven to nine feet, and its weight has been known to exceed three hundred pounds. The keel-like breastbone found in the bird of flight, and essential, as increasing materially the extent of surface from which the muscles of the breast take their origin, is absent in birds of the ostrich genus, whose wings at best serve them on land but as sails serve a boat on the water. The breastbone or *sternum* of the ostrich forms merely a kind of osseous shield, covering comparatively a very small postion of the breast. The bird's only weapon of defence is its long muscular leg. A single blow from its gigantic two-toed foot (Andersson says it invariably kicks *forward* as does a human being) is sufficient to maim and even to kill the panther or jackal, and many a time have the bare ribs of the gaunt *honden* or wild-dog sustained fatal fractures through a kick of the "camel-bird."

The eyes of the ostrich are wonderfully keen, and being so clevated above the plain, its range of vision is very great. To this fact, combined with another equally important, viz. a disinclination for any but bare and barren localities, it doubtless owes comparative immunity even from the far-reaching bullet of the European sportsman. The male ostrich is of a glossy black colour, with the exception of the large plumes of the wing-feathers, which in both sexes are snowy white, and the chief objects of ostrich hunting. In the female the general colour of the feathers is of a greyish or ash brown, slightly

fringed with white. Nothing can better illustrate the surpassing wisdom of the Creator of all things than this provision of light glossy feathers, which, while they afford a perfect shade from the sun's fiery darts, admit of the most complete ventilation. Among the inhabitants of Persia and Arabia there is said to be a vulgar belief that the shutur-moog (camel-bird) is the joint produce of a camel and some hitherto undiscovered roc-like species of ava; and, really to ignorant minds, there is almost enough of quadruped peculiarities about the ostrich to furnish excuse for the error. Its voice is sufficiently gruff to be sometimes mistaken for that of the thunder-voiced_lion; its legs are jointed strong as those of the giraffe, and cloven-hoofed ; and its hide, according to credible authorities, is stout enough to be tanned as sole-leather. Andersson says, "The skin of the ostrich is said to be held in great request, and forms no inconsiderable article The whole defensive armour of the Nasamones. of commerce. inhabitants of Lybia, was manufactured of the bird's thick skin; even at the present day it is formed into a cuirass by some of Vie Arab troops."



HABITAT OF THE OSTRICH.

THE jealousy that attaches to all other birds during their periods of incubation would seem to be entirely wanting in the ostrich. As many as forty-five eggs have been found in a

single nest—closely packed on end so as to economise space—of which number perhaps not more than so dozen may belong to any individual hen. It is a joint-stock affair, and any shareholder sits—even the managing director, the old male bird himself, is not above "lending a hand," and may be seen with his great clumsy legs astride the nesthole, and his proud head perched high in the air, ever watchful for intruders. Whether in these ostrich-egg-companies the liability is limited, and each hen depositor responsible only for the faithful hatching of her ovarious promise, is not known.

As may be supposed, so important a subject has not escaped the rays of the lamps of science. Lamp Darwin sheds the light of his research and reason on the subject as regards the ostrich of South America, the rhea, and, for all that is known to the contrary, the same laws govern the entire family. "The Gauchas unanimously affirm that several females lay in one nest. I have been positively informed that four or five hen-birds have been watched to go in the middle of the day one after the other to the same nest. Although this habit appears at first very strange, I think it may be explained in a very simple manner. The number of eggs in the nest varies from twenty to forty, and even to fifty; and according to Azara, sometimes to seventy or eighty. Now, although it is most probable, from the number of eggs found in one district being so extraordinarily great in proportion to the parent-birds, and likewise from the state of the ovarium of the hen, that she may in the course of the season lay a large number, yet the time required must be very long. Azara states that a female in a state of domestication laid seventeen eggs, each at the interval of whree days one from another. If the hen was obliged to hatch her own eggs, before the last was laid the first probably would be addled; but, if each laid a few eggs at successive periods, in different nests, and several hens, as is stated to be the case, combined together, then the eggs in one collection would be nearly of the same age. If the number of eggs in one nest is, as I believe, not greater on an average than the number laid by one female in the season, then there must be as many nests as females, and each cock-bird will have its fair share of the labour of incubation; and that during a period when the females probably could not sit from not having finished laying. I have before mentioned the great numbers of huachos or deserted eggs; so that in one day's hunting twenty were found in this It seems odd that so many should be wasted. Does it not state. arise from the difficulty of several males associating together, and finding a male ready to undertake the office of incubation? It is evident that there must at first be some degree of association between at least two females, otherwise the eggs would remain scattered over the wide plains at distances far too great to allow of the male collecting them into one nest."

With respect to the eggs found lying outside the nest, various travellers-Andersson of Lake Ngami among the number-incline to

the opinion that because the indurated matter furnished by the sterile plain would be unacceptable to the tender digestion of the newly born chicks, these supernumerary eggs are laid and stored by the thoughtful mother-ostrich, ready to be cracked for the nourishment of her callow It is unfortunate that so pretty an argument should be brood. questioned; but fact is inexorable. The surplus eggs in nine cases out of ten are, when discovered, addled and putrid; and this may probably be the reason why so many are found by European travellers; the natives knowing at a glance, or at all events at a shake, their worthlessness, and allowing them to lie as they find them, and so accumulate from season to season. Livingstone makes a remark on this subject, which, although curiously obscure, seems to bear out the last suggested notion. "The Hottentots use their trousers to carry home the twenty or twenty-five eggs usually found in a nest, and it has happened that an Englishman intending this knowing dodge, comes to the waggons with blistered legs, and after great toil finds all the eggs unestable from having been some time sat upon." Now how stands the case ? The eggs were carried in the Englishman's trousers, but the fact of the poor man's legs being blistered is prima facie evidence that for the time he did not wear his nether garments, and therefore he could not have sat on the eggs. No; it must have been either the Hottentot or some ostrich that sat on and addled the eggs; most probably the latter. I beg good Doctor Livingstone's pardon, I'm sure.

Respecting these outlying and abandoned eggs, there seems, from what can be gleaned concerning the matter, a strong probability that they are simply eggs that have been laid too late to be effectually operated on with a previously laid batch, and remaining whole and encumbering the nest after the chicks are born, are turned out. This is of course a mere guess at the riddle; if I were allowed two guesses I should join Livingstone for the second, who says, "The ostrich begins to lay her eggs before she has fixed on a spot for a nest. Solitary eggs, named by the Bechuanas 'lesetla,' are thus found lying forsaken all over the country, and become a prey to the jackal."

The egg of the ostrich weighs about three pounds, and contains as much nutritive food as twenty-four eggs of the barn-door fowl. It will be seen at once, however, that comparatively the barn-door fowl's egg is the heaviest. A hen's egg weighs on an average two ounces, and a full-grown hen six pounds. An ostrich egg weighs three pounds, and a full-grown ostrich three hundred pounds : thus it would take but *jorty-eight* of the eggs of the domestic hen to turn the beam against her, while in the case of the ostrich exactly a hundred would be required. The finding of an ostrich egg would, according to the standard of civilized appetite, be a good meal provided for three men. Three men, however, not unknown to the reader, Messrs. Stewardson, Andersson, and Galton, on the authority of the last-mentioned gentleman, "finished one very easily for breakfast, before beginning upon giraffe." Even this episode of hearty feeding, however, sinks into insignificance before an instance related by the second of the abovementioned gentlemen. "From the great size of the ostrich egg, it might be supposed that one would be a sufficient meal for any man; but I have known instances where two eggs have been despatched by a single individual, even when mixed with a quantity of flour and fat. Indeed, Hans and his companion once finished five ostrich eggs in the course of an afternoon." Tastes as well as appetites differ. "If the flesh of the ostrich be not much esteemed," says Andersson, "its eggs at all events are prized in the highest degree by natives and travellers." "The eggs have a strong, disagreeable flavour, which only the keen appetite of the desert can reconcile one to," says Dr. Livingstone.

Barrow says, "In the eggs of the ostrich are frequently discovered a number of small oval-shaped pebbles, about the size of a marrowfat pea, of a pale yellow colour, and exceedingly hard. In one egg we found nine, and in another twelve such stones." Thunberg again relates, "A stone or two is sometimes within the egg of the ostrich, hard, white, rather flat and smooth, and about the size of a bean (!). These stones are cut and made into buttons, but I never had the good fortune to see any of them." All African travellers, ancient and modern, have regarded this "stone in the egg" with more or less wonder. Livingstone, however (who, be it remembered, compares the cry of the ostrich to the majestic roar of the lion), treats the matter with characteristic coolness: "Some ostrich eggs contain small concretions of the matter which forms the shell, as occurs also in the egg of the common fowl; this has given rise to the idea of stones in the eggs." The ostrich egg is possessed of great vital power. One kept in a room during more than three months, in a temperature about

sixty degrees, when broken was found to have a partially developed live chick in it.

"Respecting the degree of intelligence displayed by the wild ostrich, the opinions of travellers are at variance, some ascribing to it the most complete stupidity, and others giving it credit for unusual vivacity and cunning. Livingstone evidently inclines to the former opinion. He says, "It is generally seen feeding on some quiet spot where no one can approach him without being detected by his wary eye. As the waggon moves along far to the windward, he thinks it is intending to circumvent him, so he rushes up a mile or so from the leeward, and so near to the front oxen that one sometimes gets a shot at the silly bird. When he begins to run, all the game in sight follow his example. I have seen this folly taken advantage of when he was quietly feeding in a valley open at both ends. A number of men would commence running as if to cut off his retreat from the end through which the wind came, and although he had the whole country-hundreds of miles-before him by going to the other end, on he madly rushed to get past the men, and so was speared. He never swerves from the course he once adopts, but only increases his speed."

In taking the eggs, the natives—if they wish to continue drawing on the nest—are obliged to use considerable caution. It is common enough—even when the hatching period is close at hand—for the whole of the proprietors of a nest to wander away from it in search of food—a circumstance that has doubtless given ground for the erroneous supposition that the bird in question leaves her eggs in the sand, trusting to the sun for their vivification. When the native finds a nest of eggs so abandoned, he procures a long stick and rakes them out all but one or two; if this is managed cleverly, and the wind has been favourable, the bereaved bird will neither scent the thief nor be aware of her loss, but go on laying for months—from June to October—supplying the Bushman with new-laid eggs with the precision and regularity of the hens of our own farms and homesteads.

Even the shell of the ostrich egg is an item of the utmost importance in the domestic economy of the wandering Bushman. It provides him with plates and dishes, and drinking cups, and, more important still, with a convenient vessel in which to carry that first essential to existence, water, across the vast and thirsty plains of Africa. The singular and ingenious method of collecting water into these shells from the reedy and shallow pools is thus graphically described by Dr. Livingstone :---

"The dread of visits of Bechuanas of strange tribes causes the Batkalahari to choose their residences far from water; and they not unfrequently hide their supplies by filling the pits with sand, and making a fire over the spot. When they wish to draw water for use, the women come with twenty or thirty of their water-vessels in a bag r net on their backs. These water-vessels consist of ostrich eggshells, with a hole in the end of each, such as would admit one's finger. The women tie a bunch of grass to one end of a reed, about two feet long, and insert it in a hole as deep as the arm will reach; then ram down the wet sand firmly round it. Then applying the mouth to the thin end of the reed they form a vacuum in the grass beneath, in which the water collects, and in a short time rises into the mouth. An egg-shell is placed on the ground alongside the reed, some inches below the mouth of the sucker. A straw guides the water into the hole of the vessel as she draws mouthful after mouthful from below. The water is made to pass along the outside-not through the straw. If any one will attempt to squirt water into a bottle placed some distance below his mouth, he will soon perceive the wisdom of the Bushwoman's contrivance for giving the stream direction by means of a straw. The whole stock of water is thus passed through the woman's mouth as a pump, and when taken home is carefully buried. I have come into villages where had we acted a domincering part and rummaged every hut we should have found nothing, but by sitting down quietly and waiting with patience until he villagers were led to form a favourable opinion of us, a woman would bring out a shellful of the precious fluid from I know not where. An intelligent Bakwain related to me how the Bushmen effectually baulked a party of his tribe which lighted on their village in a state of burning thirst. Believing, as he said, that nothing human could subsist without water, they demanded some, but were coolly told by these Bushmen that they had none, and never drank any. Expecting to find them out, they resolved to watch them night and day. They persevered for some days, thinking that at last the water must come forth ; but, notwithstanding their watchfulness, kept alive by most tormenting thirst, the Bakwains were compelled to

exclaim, 'Yak! yak! these are not men; let us go.' Probably the Bushmen had been subsisting on a store hidden underground, which 'had eluded the vigilance of their visitors."

As is the case with all wild creatures caged and domesticated against their inclination, the ostrich as he is seen in England furnishes but a poor idea of the bird's appearance as a free roamer in the African wilderness. The ostrich with which we are acquainted is a dull heavy-looking bird, with a goose-like expression and a slouching gait; but in its wild state its eye is bright and intelligent, its head well set, and by its general comportment betraying the fleet runner—so much so that one is disposed to regard the wings not as mediums of flight, but as mere ornamental appendages.

The newly hatched chicks are about as large as pullets, and as soon as they escape from the shell are able to walk about and follow their parents. The cock-bird, it seems, is just as able, and certainly as willing, to take charge of his children as the hen. Dr. Livingstone says, "I have several times seen newly hatched young in the charge of the cock, who made a very good attempt at appearing lame in the plover fashion, in order to draw off the attention of pursuers. The young squat down and remain immovable when too small to run far, but attain a wonderful degree of speed when about the size of common fowls." The colour of the ostrich chick is a blending of grey and white, and harmonizes admirably with the colour of the plains it is in the habit of traversing. Its external covering at this stage of its existence is neither down nor feathers; but a substance more resembling the bristles of the hedgehog spread scantily over its boby.

It is easy enough to domesticate the ostrich, but it is of little utility. There being no particular use for its lovely and singular plumage, when living in our genial climate, its feathers grow ragged and ill formed, and at times it is so extremely vicious as to make it dangerous for any but its keeper to approach it. All attempts to breed the tame ostrich, or to hatch ostrich eggs by means of artificial heat, have signally failed. It is only on arid plains that the giant bird "increases and multiplies."

Even on the sandy wastes of Africa, however, this important process cannot be carried on without interruption and disaster to the unfortunate ostrich. Wandering tribes of savages hunt the desert plains in search of the big bird's substantial eggs; besides man, the estrich's
ovarious deposits are frequently plundered by still more watchful enemies—the jackal, who, scraping the eggs from their low-lying nest, rolls them together that he may break them and lick up the yolks; the hyena, whose nesting tactics are much the same; and the white Egyptian vulture. Sir John Alexander relates, on the authority of the natives about Orange River, that when the ostrich has gone abroad to search for food, "a white Egyptian vulture may be seen soaring in mid-air with a stone between his talons. Having carefully surveyed the ground below him, he suddenly lets fall the stone, and then follows its rapid descent. Let the hunter run to the spot, and he will find a nest of probably a score of eggs, some of them broken by the vulture."

Should a Bushman discover a nest when a long distance from home, he is of course desirous of securing the precious eggs; but how is he to carry them ? Pockets he has not, he is equally barren of pockethandkerchief, and he does not invariably wear either a hat or a cap. Under such circumstances, dear reader, you or I would just take one egg in each hand and one under each arm, and walk off regretting that we were unable to secure any more. But the Bushman has a "dodge" almost as ingenious as it is unscrupulous. He takes off his trousers, tears a strip off the waistband, and secures the bottom of each leg therewith, and is at once provided with a commodious double bag which he fills with eggs, and contentedly trots home with his bare legs scorching in the sun. The Bushman has implicit confidence in powdered ostrich egg-shell as a preventive of eye diseases, and should his cattle be afflicted with strangury, he will grind up a bit of the potent shell, mix it with vinegar, pour it down the throat of the ox, and next morning the brute is sound again ;---at least, so says the Bushman.

There is a vulgar belief that the ostrich can eat "anything;" that articles of wood, horn, or stone, are as acceptable to his accommodating stomach as a feed of grain, and that if a packet of tenpenny clouts and a peck of oats were set before him, he would as soon devour one as the other. This is by no means a modern error. In the "Boke of Phillip Sparrow" we read of

> The ostridge that will eate An horshows so great In the steade of meat Nuch fervent heat His stomach hath.

Although there are no authenticated instances on record of the ostrich ever having eaten so indigestible a thing as a "great horseshoe," the obtuseness of taste displayed by the giant bird is very remarkable. In a wild state its chief food consists of pods and seeds of different kinds of leguminous plants and small bulbs. The naras is also a great favourite with the ostrich. The naras is the fruit of a creeper growing in the sand; it is about the size of an ordinary turnip, covered with prickles and of a yellowish green colour; the interior is of a deep orange colour, and contains a number of seeds much resembling in appearance and flavour bleached almonds. If. however, while searching for bulbs a few marble-sized pebbles should present themselves, the ostrich will swallow them with the greatest unconcern. Ostriches that have been domesticated are even less particular in their diet. A mixture of barley, chaff, and cabbage is the food usually allowed them, but when confined they have been known to devour wood shavings with great relish; and on one occasion, a gentleman who had an ostrich, and who likewise grew wall-fruit, discovered the former busily eating up some shreds of old cloth he was knocking from the wall to which they had been attached, to support last year's fruit branches.

Methuen in his "Life in the Wilderness," when speaking of a female ostrich that came under his immediate attention, says: "One day a Muscovy duck brought a promising brood of ducklings into the world, and with maternal pride conducted them forth into the yard. Up with solemn and measured strides walked the ostrich, and wearing the most mild, benignant cast of face, swallowed them all one after the other like so many oysters, regarding the indignant hissings and bristling plumage of the hapless mother with stoical indifference."

Another story is told of a woman living at Portsmouth, who hearing of the arrival of a cargo of ostriches, locked up her house and hurried off to see them landed. The forlorn and bedraggled creatures were penned together near the Dockyard, and the woman, who carried her street-door key on her finger, compassionating their distress, patted the innocent-looking head of the nearest bird to her; but the silly creature thinking it was food and not kindness the lady was offering him, snapped at the iron key and swallowed it at a gulp. There is another story told concerning a tame ostrich kept aboard a man-ofwar. For a considerable period the clesp-knives of the mariners continued to disappear in an unaccountable manner. At last, however, it was remarked that whenever the bird approached the ship's compass it oscillated in the strangest way, and it was only on the animal's death and dissection that the reason was discovered—a quantity of iron clasp-knives in its inside. This latter narrative is, however, in all probability fictitious.

The flesh of the ostrich is white and coarse, somewhat resembling in flavour the flesh of the wild turkey; so says more than one authority, while Andersson compares the taste of ostrich to the flesh of the zebra; at the same time, however, he assures us that when young the ostrich is "not unpalatable." In accordance with Mosaic law, the Jews regard the ostrich as an unclean beast, and will not partake of its flesh. Most of the natives of Southern Africa, however, have no such religious scruples, and look upon ostrich flesh as a rare daintyospecially when it is nice and fat. Moreover, the African savage is not to be despised for his taste ; the ancient Romans, who were almost as great as gluttons and epicures as they were as men of war, regarded the ostrich as a delicious dish-a dish fit to be set before the king; nor was "the king" slow to appreciate its "fitness," for it is related of the Emperor Firmius that he devoured an entire ostrich at one As to the silly bird's brains, they were considered a sitting. superlative delicacy. Six hundred such brains were cooked and served at one serving at the table of the Emperor Heliogabalus.

The enduring speed of the ostrich is marvellous. A reliable and painstaking traveller has been at the trouble of observing and carefully measuring the pace of the great bird. The result is as follows : "When the ostrich is feeding, his pace (stride) is from twenty to twentytwo inches; when walking but not feeding, it is twenty-six inches, and when terrified it is from eleven and a half to thirteen and even fourteen feet in length. Only in one case was I at all satisfied at being able to count the rate of speed by a stop-watch, and if I am not mistaken there were thirty in ten seconds; generally one's eye can no more follow the legs of the ostrich than it can follow the spokes of a carriage-wheel in rapid motion. If we take the above numbers, and twelve feet stride as the average pace, we have a speed of twenty-six miles an hour. It cannot be very much above that, and is therefore slower than a railway locomotive." We have the evidence of Gordon Cumming and Mr. Andersson to the same effect. The latter gentleman says, "Its speed is truly marvellous. Its feet seem hardly to touch the ground." Adauson relates that in Senegal he has witnessed two men mounted on the back of an adult ostrich, and the bird maintaining a speed exceeding that of the fastest horse.

While at Bahia Blanca, Darwin saw three or four ostriches come down at low water to the extensive mud banks, and was informed by the Gauchas that they came there to feed on small fish. The lastquoted authority says, "It is not generally known that the ostrich takes readily to the water. On one fine hot day I saw several enter a bed of tall rushes, where they squatted concealed till quite closely approached. Mr. King informs me that at the Bay of St. Blas and at Port Valdes in Patagonia, he saw these birds swimming several times from island to island. They ran into the water both when driven to a point, and likewise of their own accord when not frightened; the distance crossed was about two hundred yards. When swimming, very little of their bodies appear above water; their necks are extended a little forward, and their progress is slow. On two occasions 1 saw some ostriches swimming across the Santa Cruz river, where its course was about four hundred yards wide and the stream rapid. Captain Sturt, when descending the river Murrumbilgee in Australia, saw two emus in the act of swimming."



SICH CLOSIRICH.

HOW HE IS HUNTED FOR HIS PLUMAGE.

DCES my lady the Duchess of Gemantin ever give a thought as to the manner in which the lovely white wing-feathers of the ostrich, gracing her noble head, came into the market? Let her ladyship ask her "feather-man," and doubtless he will inform her that they were "exported from the Cape." But the ostrich, for all his reputed silliness, does not come down to the Boer's store at the Cape, and shed his feathers at command. He parts with his feathers only with his life, and of this latter possession he is as chary as the best of His head is planted high in the air, and his organs of vision are so placed that he can discern an enemy at a great distance. The introduction of European hunting tactics have done little towards stocking the ostrich-feather market. In fair chase, the horse is no match against this plumed game, and should the hunter's dog outstrip his steed, it had best not be too presumptuous. The strength of the strich is equal to its bulk, and a single straight-out kick (the way, it is said, in which it uses its only weapon of defence) will break back or limb as surely as a blow from the paw of the lion. Still, the ostrichfeather market must be supplied. King Fashion demands it. The mighty monarch insists on several hundredweight of feathers each year, and though on an average seventy feathers weigh but a single pound, and it rarely happens that more than five and twenty marketable feathers can be plucked from any one bird, King Fashion requires a certain number for his weddings, and buryings, and court presentations, and operas, and balls, and obtained they must be.

The Damara and the Bechuana have no objection. From two to twelve guineas per pound is the price offered by the exporter, and if the Damara or the Bechuana is three months or so earning even the smaller sum, he considers it splendid wages, and the following are a few of the methods to which he resorts in discharge of this branch of his business.

March or April is the chief "feather season," for then the birds have recovered their moult, and their feathers are springy and vigorous; whereas at other periods, especially during the pairing season, the ostrich, like the familiar turkey-cock, has a habit of trailing its wings and utterly spoiling the outer feathers. The savage hunter provides himself with a bow about three feet long, and with arrows made from a slenger reed, and tipped with a sharp spike of bone, thoroughly poisoned with a composition of which the principal ingredients are obtained in form of a milky juice from the Euphorbia tree; or from the entrails of a little caterpillar called N'gwa. They squeeze out these and place them all round the bottom of the barb, and allow the poison to dry in the sun. With the loftiest contempt for anything approaching cleanliness, the South African takes particular care in "working" this poison, to cleanse his hands, his finger nails, and the poison is so terrible, that in a few moments the person imbibing it either goes raving mad, and flies or is driven from human habitation, or becomes a whining idiot "calling for his mother's breast as if he were returned in idea to childhood again."

With his arrows tipped with one or other of these potent poisons. the savage hunter discovers the nest of an ostrich-a mere hollow in the sand from three to six feet wide and eighteen inches deep Removing the eggs from the nest and burying them out of sight, the cunning bowman lies flat on his belly in the excavation, and patiently awaits the return of the unsuspecting birds. Let their number be what it may, two, three, or four, he lies quite snug and still, till sauntering easily up they come fairly within range of his dreadful arrow; then over the edge of the nest he takes aim, and before the first bird, pierced with the poisoned dart, has time to cry out, another arrow is fitted, and twang! another mighty ostrich is stricken to death. If he is a cool hand and knows his business, ten minutes from the time of the ostriches' first approach will see him with the entire family at his feet, and he eagerly gathering his crop of feathers. It is important that he should pluck them while the bird's body is still warm-they retain their gloss and curl the better, and fetch more at the sale.

Another method adopted by the ostrich hunter is to disguise himself in the skin of one of these birds, and, armed with his bow and poisoned arrows, stalk about the plain imitating the gait and motions of the ostrich. Mr. Moffat thus describes a hunt of this kind :---

"A kind of flat double cushion is stuffed with straw and formed something like a saddle. All except the under part of this is covered

over with feathers attached to small pegs and made so as to resemble the bird. The head and neck of an ostrich are stuffed and a rod introduced, and the Bushman intending to attack game whitens his legs with any substance he can get. He places the feathered saddle on his shoulders, takes the bottom part of the neck in his right hand, and his bow and poisoned arrows in his left. Such as the writer has seen were most perfect mimics of the ostrich, and at a few hundred yards' distance it is not possible for the eye to detect the fraud. This human bird appears to be picking away at the verdure, turning the head as if keeping a sharp look-out; shakes his feathers, now walks and thon trots, till he gets within bow-shot, and when the flock runs from one receiving an arrow, he runs too. The male ostriches will, on some occasions, give chase to the strange bird, when he trics to elude them in a way to prevent them catching his scent; for when once they do, the spell is broken. Should one happen to get too near in pursuit, he has only to run to windward, or throw off his saddle, to avoid a stroke from a wing that would lay him prostrate."

The Arabs of North Africa pursue the ostrich on horseback ; not at a dash, however—one exciting run and victory decided—but in a deliberate and business-like way. A flock having been sighted, the Arabs put their steeds in motion, and hold them at sufficient speed to keep in sight the fluttering army in advance. When the evening comes, the Arab pickets his horse and rests for the night, and his tired game, finding it is no longer pursued, sinks to the earth and rests too. Next morning the chase is commenced, the clicking of hoofs rouses the still weary bird, and once more he braces his limbs and pursues his hopeless flight. So the game continues, till, tired to death, and with drooping and bedraggled wings, the poor ostrich comes to a dead halt, and the gallant Arab hunter safely approaches and cuts its throat.

Towards the approach of the rainy season, when the days are intolerably hot and sultry, the ostrich may easily be ridden down by a single horseman. At the above-mentioned period the protracted drought tells even on this invulnerable bird, and he may be seen standing in a stupified manner with his wings outspread and his beak wide open. Under such circumstances he offers but little resistance, and though for a few moments he may make hard running, his speed is not enduring; and presently he is again stock still and stupidly agape, waiting for the hunter to knock him on the head with his

"shambok," or knobby stick. Andersson relates that in certain parts of Southern Africa the ostrich is run down on foot. "I have myself seen the Bushmen accomplish this exploit on the shores of Lake Ngami. They usually surround a whole troop, and with shouts and vells chase the terrified birds into the water, where they are of course speedily killed." Harris, on one occasion, fell in with a party of caravans chasing an ostrich on foot, and when they got close enough, "shying" after the fleeing bird their clubs, striking the bird's legs and eventually laming him. "When the ostrich is slain," says the lastmentioned authority, "the throat is opened and a ligature passed below the incision. Several hunters then raise the bird by the head and feet, and shake and drag him about until they obtain from the aperture nearly twenty pounds of a substance of mingled blood and fat, of the consistence of coagulated oil, which under the denomination of manteque is employed in the preparation of dishes and the cure of various maladies."

Some African tribes take the ostrich in snares, similar to those used in the capture of the smaller species of antelope. "A long cord having at the end a noose is tied to a sapling, which is bent down, and the noose pinned to the ground, in such a manner that when a bird treads within it the sapling springs back by its own natural elasticity, suspending the bird in the air, only to be released from its sufferings by death." Others again are said to employ ostrich feather parasols, or rather massy plumes—such as adorn our hearses—while hunting wild animals of every description. Thus in case of a wounded beast charging a man, the latter, just at the moment he is about to be seized, whips the big plume off his head, and thrusting the spike to which the feathers are bound into the ground slips off. While the furious animal is venting his rage on the nodding feathers, the wild hunter steals to its rear, and transfixes it with his assagai.

In hunting the ostrich, the mode most favoured by the European sportsmen is to lie in wait at the margins of such pools and springs as the birds come to, to drink. They swallow the water deliberately, and by a succession of gulps. While staying at Elephant Fountain, Andersson shot eight, within a very short period. "Lying in wait," however, and taking advantage of your game from behind a wall or hedge, is by no means as a rule a favourite system with the European hunter. If an animal has "fight" in it, nothing gives the true sportsman greater pleasure than for it to demonstrate the same to the fullest extent--sharp steel against talons just as sharp and terrible, swift bullets against swift and sudden springs and bounds, and death-dealing fangs; the chances are brought to something like a balance, and the old English motto, "fair play," which Englishmen would carry with them even to the heart of an Indian tiger jungle, vindicated. Should the animal chased be dependent on its fleetness for safety, again the true sportsman would meet it with its own weapons, and stake bit and spur on the issue of the chase.

Mr. Andersson relates the particulars of a chase after young outriches by himself and a friend, and which is none the less interesting that it bears witness to the tender solicitude of the ostrich for its progeny. "While on the road between the Bay and Scheppmansdorf, we discovered a male and female ostrich, with a brood of young ones, about the size of ordinary barn-door fowls. This was a sight we had long been looking for, as Galton had been requested by Professor Owen to procure a few craniums of the young of this bird. Accordingly we dismounted from our oxen and gave chase, which proved of no ordinary interest.

"The moment the parent-birds became aware of our intention, they set off at full speed, the female leading the way, the young following in her wake, and the cock, though at some little distance, bringing up the rear of the family party. It was very touching to observe the anxiety the old birds evinced for the safety of their young. Finding that we were quickly gaining upon them, the male at once slackened his pace, and diverged somewhat from his course; but seeing that we were not to be diverted from our purpose, he again increased his speed, and with wings drooping so as almost to touch the ground, he hovered round us, now in wide circles, and then decreasing the circumference till he came almost within pistol-shot, when he threw himself abruptly on the ground and struggled desperately to regain his legs, as it appeared, like a bird that has been badly wounded. "Having previously fired at him, I really thought he was disabled, and made quickly towards him; but this was only a *ruse* on his part; for, on my nearer approach, he slowly arose, and began to run in an opposite direction to that of the female, who by this time was considerably ahead with her charge. After about an hour's severo chase, however, we secured nine of the brood, and though it consisted of about double that number, we found it necessary to be contented with what we had bagged."



SALL TON OF DEER.

STRUCTURE OF THE REINDEER.

THE Reindeer is a stout-built, muscular animal, weighing on an average about three hundred pounds. Its hair is long, thick, close, and of a slaty-grey colour, merging into white about the hinder parts and under the belly. The horns of the reindeer are large and branched, and serve the animal in good stead as weapons of defence. The female, as well as the male of the species, has horns; but they are much smaller and weaker. These horns, as is the case with the entire deer tribe, are reproduced from year to year. No sooner docs the return of spring rouse the dormant reproductive energies of the system, than the budding antlers begin to sprout from the forehead of the stag, and expand in their dimensions from day to day. The rapidity with which these "branching honours" are produced is truly wonderful. In the Wapiti deer, for instance, the horns thus annually produced will weigh upwards of thirty pounds; and according , to the investigations of modern science, the horns of the ancient Irish elk must have weighed more than its entire skeleton.

On the above subject Rymer Jones says, "In consequence of the weight of the horns in such species, the head is necessarily extremely heavy; and in genera where the horns are wanting or feebly developed, as in the camel or the giraffe, such is the length of the neck, that even with a disproportionately small head attached to the extremity of 50 long a lever, incessant and violent muscular exertion would be needed to sustain or to raise it from the ground. This difficulty is alleviated by a very simple and elegant contrivance. A broad band of ligaments, composed of the same elastic tissue as that composing the ligamenta subflava of the human spine, is extended from the tips of the elongated spinous processes of the back, and sometimes even as far backward as the lumbar and sacral regions. This ligament, strengthened by additions derived from most of the vertebral processes over which it passes, runs forward to be fixed anteriorly to the crest of the accipital Sone, and to the most anterior of the cervical vertebræ. The whole weight of the cranium and neck being therefore fully counterbalanced by the elasticity of the suspensory ligament, the muscles of the neck act with every possible advantage, and all the movements of the head are effected with the utmost grace and facility."



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WHAT the horse is to us is the icindeer to the swarthy-faced, stunted inhabitant of Lapland or Spitzbergen The reindeer is the Lap's cow, and

sheep, and ox, and ass, rolled into one. It furnishes him with roofing for his house, with flooring for ditto, with a bed to lie on, with clothes and shoes, with cordage, and strings to his bow, with meat dried and fresh, with milk liquid or in preserved and fiozen lumps, and with blood puddings. By the reindeer the Laplander lives, and moves, and has his being; "reindeer" is with him but another term for wealth, and as exactly represents it as does gold in the ordinary commercial sense.

The man Lap and the woman Lap alike adopt the skin of this precious member of the deer family as clothing material, and both wear precisely the same shaped garments. A pair of breeches is cut from the skin of a fawn, sewn with fine gut-strings, with a reindeerbone needle; a pair of deer-hide stockings are drawn over the feet and secured above the knee by deer-thong garters; while the hairy coat stripped from the back of the deer and transferred to that of the Lap, is converted into a pelisse by a very simple process; the fags and hanging pieces are just trimmed off, a big hole cut in the centre for the head, and two smaller ones for the arms, and the garment is complete, and together with the breeches and stockings thoroughty equips the lady or gentleman Lap.

As may be imagined, the constant demand by the Lap's family for reindeer is not met by the possession of a mere half-dozen animals. Twenty, forty, fifty, is held to be an insignificant number; indeed, when a man possesses the latter number he invariably lends them and himself to a larger proprietor, until, by his earnings and the natural course of events, the herd amounts to a hundred, then he has a right to the title of a *free reindeer Lap*, and becomes an independent member of society. By industry and clever bartering some Laps will amass a thousand head of deer, some, indeed, own nearly two thousand ; but these are the Barings and Rothschilds of Lapland society, and are treated as such.

A recent writer on this subject thus describes the Laplander's home : "Notwithstanding the severity of his clime he builds no house, and even his tent is of the very rudest kind known among tenting tribes. It consists of some birch saplings set up in the snow, bent towards each other, and then covered over with a piece of coarse cloth, or wadmal. This he prefers to a covering of skins, and obtains it from the Norwegian or Russ trader in exchange for the latter. The tent, when standing, is only six feet high, and not much more in In this circumscribed space his whole family, wife, diameter. daughters, sons, often a retainer or two, and about a dozen dogs, find shelter from the piercing blasts-seated or lying beside or on top of one another, higgledy-piggledy, any way they can. There is room found besides for a huge iron or brass cooking-pot, some dishes and bowls of birch, a rude stone furnace and a fire in the middle of the floor. Above the fire a rack forms a shelf for countless tough cheeses, pieces of reindeer's flesh, bowls of milk, bladders of decr's blood, and a multiplicity of like objects. . . . Fresh branches of evergreen pines and other trees are strewn over the floor, and on top of these are laid the deer skins that serve for beds, chairs, tables, and blankets. A hole in the roof is intended for a chimney; but its draught is so bad, that the tent is almost always filled with a cloud of bitter smoke. In this atmosphere no other European except a Lap could possibly exist; and travellers passing through the Lapland country have often preferred braving the cold frost of the night air to being half smothered by the smoke, and have consequently taken shelter under a neighbouring tree."

A family of reindeer Laps sitting down to dinner must be an interesting sight. First you have got to imagine the father Lap, and the various Lap olive-branches, squatted in a ring on the skin-covered floor, with a few gaunt dogs, hungrily nosing in and about the tent, and mother Lap intent on the cooking-pot, that is suspended by a pair of smoke-blackened and hooked antlers, in a corner. Presently the lump of reindeer flesh is pronounced to be "done," and is transferred from the pot to a big birch-bark bowl, and placed in the middle of the expectant group. There are no vegetables, no bread, no salt even. Neither is there dinner beer, but, in lieu of it, the liquor in which the meat has been boiled is turned into a handy vessel, and placed by the side of the meat-bowl. Father Lap carves. He draws his long knife and detaches from the joint a handy bit for every one of the company. By the byc, I should have mentioned that besides the meat and wa-(I had almost written "wash") broth, there is within the dinner circle a pot containing the fat that has been skimmed from the big boiling pot. Each individual in his turn dips his length of meat in this fat, makes a bite and dips again, till his ration is exhausted, and then he takes a refreshing pull at the broth in the jar, and retires full of the pleasant conviction that he has had a capital dinner.

Of the reindeer's blood the Laplander makes a sort of "hog pudding," using instead of cubes of pork fat a sort of bilberry that is yet green when the winter sets in, and remains on the tree covered with snow till the return of spring, when it is found ripe and mellow. Sometimes, instead of blood, curdled milk is used to fill the pudding bladders, and when the mass has "set," it keeps sweet through the sceson, and is caten as we cat cheese.

Besides these, the Laplander makes another reserve for "hard times." In the winter season the deer give no milk, still the reindeerfarmer has this necessary article of diet on hand all the year round not in a liquified state, but in blocks hard and dense as marblefrozen milk in fact; but though the white slab be three months old, it is only necessary to break off a lump and set it in a pot near the fire, and in a few minutes you have a draught of milk, warm, new, and delicious, as though the maid had that instant left her milking-stool to bring it you.

In speed the reindeer is only equalled by our fleetest horses, while the endurance of the latter is not nearly so great as that of the Lapland steed. Harnessed to a sledge (in shape exactly like a little slender-stemmed boat, being about six feet long and sixteen inches wide at its broadest part, and with a "keel" four or five inches_wide), the reindeer will easily accomplish twenty English miles an hour; and with relays stationed at twenty miles distant from each other, a journey of four hundred miles has been overcome in a single day. The mode by which the reindeer is attached to the boat-like car is somewhat singular. A band of hide acts as a collar, and from the lowest point of this a piece is attached and hangs down like a martingale There is but a single trace, one end of which is attached to the collar-piece, and, passing between the animal's fore and hind legs, is hitched to a hook driven in the fore part of the vehicle. This single trace is upheld by a band that encircles the animal's body; a single rein attached to a simple head-stall, or more commonly to the reindeer's left horn, completes the equipment. Usually the Lap has little trouble with his antlered steed, but it will sometimes happen that the deer will take sudden offence at his driver or his path, and, disengaging himself from the sledge, show fight, pawing the snow with his sharp hoof, and lowering his armed head menacingly. In such a case the driver promptly converts his carriage into a shield, and, raising it on end, manœuvres with it this way and that till the brute's fury is spent, and he allows himself to be once more harnessed and responds to the encouraging "chek, chek," and the urgent shaking of the single rein.

In Spitzbergen, as well as Lapland, the reindeer abounds. Lamont, who went on a hunting tour to the former country a short time since, reports that in every valley which affords any vegetation a troop of them, from three to twenty, is generally to be met with. In the summer season they do not live in large herds together. An extensive valley may perhaps contain forty or fifty deer, but they are all in small independent companies, of two, four, or six. In the winter season, however, when they come down to the islands and the wide flats on the seashore, it is likely that they congregate in great numbers, travelling as they do over vast tracts of land and ice in search of food.

The short time occupied by the reindeer in changing his condition of starving boniness to actual obesity, is almost as marvellous as the rapid growth of its horns. Lamont says, "This seems to be a sort of provision of nature, to enable these animals to exist through the long polar winter, as during that inclement season, although they no doubt obtain a little sustenance by picking the dry withered moss from spots which the wind has cleared of snow, as well as by scraping up the snow with their feet to get at it, still they must in a great measure subsist by consuming internally their own fat. The short space of time which suffices for them to lay on this coat of blubber is perfectly extraordinary; and as scarcely any grass exists, even in the most favoured parts of Spitzbergen, this must be chiefly attributable to some excessively nutritious qualities in the mosses on which they feed. The deer killed by my yacht crew in Bell Sound, in July, were mere skin and bone, whereas now, in the end of August, every decr we shot was seal-fat, and in all probability their condition goes on improving till the end of September. Of those we killed, even the hinds giving milk, and the calves, were very fat, and the old stags were perfectly obese, having all over their bodies a sort of cylinder of beautifully hard and white fat, about two inches thick in most parts, and at least three inches thick over the haunches and on the brisket."

To the true hunter, however, the reindeer affords but tame sport, a circumstance arising solely from the animal's utter fearlessness. The above-quoted authority says, "I have repeatedly known deer which I had failed in approaching unseen, come up boldly of their own accord, until they were within easy shot of me, although I was not only in full view but to windward of them. I can only account for this extraordinary temerity on the part of these deer by supposing that they were individuals reared in some remote part of the country, and had never seen a human being, nor anything else which could hurt them. Neither does the report of a rifle much alarm them; but that is more easily understood, as they are no doubt accustomed to hearing the cracking of the glaciers and the noises caused by the splitting. rocks by the frost in winter. On one occasion my companion found a trocp of five deer, and obtaining a concealed position within range of his rifle, knocked over four of them by a bullet from each of his four barrels; the survivor then stood sniffing his dead companions until Kennedy had time to load one barrel and to consummate this unparalleled sporting feat by polishing him off likewise." Again, "In the first valley we came to we espied some small troops of deer feeding within half a mile of the shore. We landed, and I killed nine of them without much trouble, and I might easily have shot as many more; but I got disgusted with such a burlesque upon sport, and left them alone. I was much amused by one of these deer, a wellgrown stag, who upon receiving my bullet in his ribs made a furious attack on a companion of about his own size, evidently under the impression that the bullet wound was the result of a treacherous prick from the horns of his friend."

Mr. Lamont tells a curious story respecting the reindeer's tenacity of life. "On one occasion," says the narrator, "we broke one of the fore feet of an old fat stag from an unseen ambush; his companions ran away, and the wounded deer, after making some attempts to follow them, which the softness of the ground and his own corpulence prevented him doing, looked about him a little, and then seeing nothing, he actually began to graze on his three remaining legs as if nothing had happened of sufficient consequence to keep him from his dinnor.".



LAPLAND SLPDOF.

THE ORYX.

THE oryx, or gemsbok (so called from its supposed resemblance to the chamois or gemze of Europe), is certainly one of the most elegant and remarkable of the antelope tribe, and seems restricted to the central and western parts of Southern Africa, few or none being found in the eastern portion. The adult male measures three feet ten inches in height at the shoulder, and its colour is a pale buff. Possessing many of the beautiful peculiarities which characterise antelopes, the oryx has something anomalous in his composition. His head is shaped like that of the wild ass (which animal he much resembles in size), he has the mane of the horse, a caudal appendage much like that worn by the animal last mentioned, and the jetty black bands adorning its head give it at a distance the appearance of wearing a stall-collar. His horns are about three feet in length, slightly curved backwards, ringed at the base, and of a shining black colour. He is extremely active in the use of these defensive weapons, and-as would hardly be suspected from the fact of the horns pointing backwardscan strike an object in front as well as behind. When driven to bay by dogs, it will place its head between its legs, so that the tips of its horns almost rest on the ground, and rip open or toss in the air such of its assailants as may find the boldness to face it. It is even said that the nimble little oryx has no dread of the grim lion, and Andersson's man Hans informed him of an instance where a lion and an oryx wore found lying dead in each other's grasp, the latter having with his home transfixed his assailant. Cumming was informed of exactly the same thing-indeed, this latter gentleman on one occasion came nearly to testing the sharpness of the oryx's horns in a practical manner. Having at a distance wounded one of these animals, he " cantered up to her, when she ran a short distance, and then, facing about, stood at bay. I foolishly approached her without firing, and very nearly paid dearly for my folly; for, lowering her sharp horns, she made a desperate rush towards me, and would inevitably have run me through, had not her strength at this moment failed her when she staggered forward and fell to the ground.

A side view of the animal when both its long straight horns are perfect gives one the idea that it has but one horn, so exactly does one cover the other; in fact, a picture of the fabled unicorn is thus exactly represented, and it is by no means improbable that that famous beast was born of the distant and side-long glances of ancient hunters. Andersson, in his "Lake Ngami," speaking of the oryx, says, "Judging from some ancient coat-of-arms, it would really seem that the gemsbok was known to Europeans even before the Portuguese discovered the passage round the Cape of Good Hope. We are told that John of Lancaster, the great Duke of Bedford, bore his arms supported by this animal, which is still on the sinister side of the heraldic shield of the present ducal house of Bedford. Amongst various embellishments which are painted in the Bruges style of the period, in a prayer-book, once the property of John of Lancaster, are found his armorial devices, with the antelope black, whose straight spiral horns are evidently intended for those of the oryx. It is conjectured that this book was illuminated on the marriage of the Duke of Bedford with Anne, princess of Burgundy. Be this as it may, it cannot well be later than the period of his death, in the year 1435."

The female oryx is exactly similar in appearance to her mate, but not quite so tall; moreover, her horns are longer and more slight and tapering than his, and about one-third of their entire length is hollow. The animal is gregarious in its habits, though rarely seen together in any great number. The calf is of a reddish brown colour, which gradually fades to the proper light buff as it grows older.

To the oryx's manner of subsistence there attaches a degree of marvel and mystery remarkable in this non-wondering and clearsighted age. One explorer says, "Amidst the scorching sands of the African desert, it is incomprehensible how entire herds of gemsbok obtain their aliment." Mr. Gordon Cumming follows suit. "It thrives," says he, "and attains high condition in barren regions, where it might be imagined that a locust would not find subsistence;" and, more wonderful still, this usually matter-of-fact and hard-headed authority goes on to tell that, "burning as is the climate, it is perfectly independent of water, which, from my own observation, and the repeated reports both of the Boers and aborigines, I am convinced it never by any chance tastes." Emphatic as is this statement, however, it is not a whit more so than one made by Mr. Andersson of an exactly contrary character. "Not only have I on several occasions seen it whilst in the very act of drinking," says the last-mentioned gentleman, "but perfectly well authenticated instances have come to my knowledge, where whole troops of these animals have been discovered either dead, or in a dying state, near pools purposely poisoned by the natives for the capture of wild animals. True, it is found in the most dreary and desolate districts, far distant from water ; nevertheless, more especially at early morn, it occasionally frequents the banks of periodical streams, flanked or bordered by broken ground or hills, and it is to such localities it flies for refuge when pursued."

Again : speaking of the speed of the oryx, Mr. C. says, "I had been lead by a friend to believe that a person even of my weight, if tolerably mounted, could invariably, after a long chase, ride right into them. My friend, however, was deceived in the opinion he had formed. In the whole course of my adventures with gemsbok, when mounted on the pick of my stud (which I nearly sacrificed in the attempt), it never occurred that alone and unassisted I succeeded in riding the oryx to a stand-still.

"Owing to the even nature of the ground the oryx frequents, its shy and suspicious disposition, and the extreme distances from water to which it must be followed, it is never stalked or driven to an ambush like other antelopes, but is hunted on horseback and ridden down by a long, severe, tail-on-end chase." Says Mr. A. : "When on foot I have killed great numbers of these animals. Moreover, were the option left me, I would rather 'stalk' them than pursue them on horseback. Such also was Hans' experience, who, during his seven years' nomade life in Damara-land, has probably killed more gemsboks than any other hunter in Southern Africa."

The ancient problem respecting the disagreement of doctors is easier to solve than the above; because, in the former case, whatever the diversity of opinion may be, the same result, whether destructive or curative, would probably ensue in the end: besides, with the medical faculty, as with every other, there are boundaries over which the most obstinate and blind dare not step. No doctor, for instance, would order the amputation of a limb for hooping-cough, or prescribe the stomach-pump for toothache. In the case, however, of our patient the oryx, we have doctors A. and C. who both persist in knowing all about his case—who have observed him closely and at a distance, who have hunted him, seen him dead at their feet, cut him up and ate him even—broadly asserting that what the other describes as jet black is in fact snowy white—that "he can scarcely be overtaken on horseback," and that he can "with ease be 'stalked' afoot ;" that "he never, by any chance, tastes water," and that "it flies there (to the water) for refuge when pursued !"

Mr. Cumming, however, has this advantage over his brother traveller; the latter, although he has chased the oryx, gives no account of the hunt, while the former does so with his usual minuteness and detail, and at least in half a dozen different parts of his volumes. It will be only fair to Mr. Cumming to quote one or, two of his instances; especially as they bear materially on the chief point of dispute—the bibulous habit of the oryx.

"Between three and four P.M. I sallied forth with my after-riders, Jacob and Cobus, who led a spare horse. At length I perceived a herd of ash-coloured bucks, and at once knew them to be gemsbok, and gave chase at a hard canter. I gradually gained upon them, and after riding hard for about two miles, I ordered Cobus to go ahead and endeavour to close with them. At this moment we had reached the border of a slight depression in the plain, down which the herd led, affording me a perfect view of the exciting scene. The gemsbok now increased their pace, but Cobus's horse, which was a good one, with a very light weight, gained upon them at every stride, and before they had reached the opposite side of the plain he was in the middle of the foaming herd, and had turned out a beautiful cow, with a pair of uncommonly long and fine horns. In one minute he dexterously turned her in my direction, and heading her, I obtained a fine chance, and rolled her over with two bullets in her shoulder. My thirst was intense, and the gemsbok having a fine breast of milk, I milked her into my mouth, and obtained a drink of the sweetest beverage I ever tasted."

This feat accomplished, the hunter ordered one of his Hottentots to mount the spare horse, pursue the flying herd, and endeavour to turn from it and hold in check a bull gemsbok, till his master could come up with his death-dealing rifle. So instructed, Cobus started his swift nag, and was speedily lost over the brow of a hill. Leaving the grassy plain for a barren and sterile region, the gemsbok flow with the speed of the wind, so that when at length Mr. Cumming had persuaded his weary horse to reach the summit of a high hill, not a trace of Cobus or gemsbok could be seen. At length, after fagging a few miles farther in the direction he thought it probable Cobus would take, he had the satisfaction to see the worthy Hottentot's shirt fluttering on a distant eminence as a signal. On making his way thereto, there was a fine bull gemsbok utterly used up, and lying panting on the ground, while Cobus kept guard.

"I thought him," writes Mr. Cumming, "one of the most lovely animals I had ever beheld, and I could have gazed for hours on him; but I was now many miles from my waggons, without a chance of water and dying of thirst, so I speedily finished the poor oryx, and having carefully cut off the head, commenced skinning him.

"It was now late-too late to take home the cow oryx that night: the bull was much too far from my camp to think of saving any part of his flesh; I therefore sent off Cobus to the waggons to fetch water and bread, desiring him to meet me at the spot where the cow gemsbok was lying, where I resolved to sleep, to protect her from hyænas and jackals; but before Jacob and I had accomplished the skinning, and secured the skin and the head upon the horse, night had set in. My thirst was now fearful, and becoming more and more raging. I would have given anything I possessed for a bottle of water. In the hope of meeting Cobus, Jacob and I rode slowly forward and endeavoured to find out the place; but darkness coming on, and there being no feature in the desert to guide me, I lost my way entirely, and after wandering for several hours in the dark, and firing blank shots at intervals, we lay down in the open plain to sleep till morning, having tied our horses to a thorny bush beside which we lay. I felt very cold all night, but my thirst continued raging. My clothes consisted of a shirt and a pair of knee-breeches. My bed was the bull's hide laid over a thorny bush, which imparted to my tough mattress the elasticity of a feather bed. Having slept about two hours I awoke, and found that our horses had absconded, after which I slept little. Day dawned, and I rose, and on looking about, neither Jacob nor I had the least idea of the ground we were on, nor of the position of our camp. Ascending a small hill, I ascertained the points of the compass and the position of my camp, by placing my left hand towards the rising sun, and suddenly perceived standing within three hundred yards of me the horse which I had fastened beside the cow oryx on the preceding evening, and on going up I found both all right. I

immediately saddled the horse and rode hard for camp, ordering Jacob to commence skinning the cow, and promising to send him water and bread as soon as I reached the waggons. On my way thither I met Cobus on horseback, bearing bread and a bottle of water, wandering he knew not whither, having entirely lost his reckoning. My thirst had by this time departed, so I did not touch the water, but allowed him to take it on to Jacob."



ROEBLCK





THE CHAMOIS.

It has been a disputed point whether the chamois should be classed with the goat or antelope genus. There is, however, so little affinity between the chamois and the goat, that to my mind little doubt can be entertained about the matter. The frontal bone of the chamois just before the horns is concave; that of the goat convex. The horns of the latter recede, those of the former advance and are perfectly smooth and plain, while the goat's horns are wrinkled. One has a beard, the chin of the other is destitute of any hirsute appendage. Above all, although on the mountains herds of goats are constantly wandering about near the haunts of the chamois, no one instance is known of a she goat having brought forth young which were a cross between the two breeds. The chamois indeed always avoid the spots where goats have strayed.

The chamois is a trifle larger than the roebuck, and when full grown weighs from sixty to eighty pounds. Its colour changes with the seasons. In summer it is of a dusky yellowish brown, in autumn dark brown, and in winter jet black, excepting the hair of the forehead, the belly, and the hair that overhangs the hoofs, which is tawny and remains so always. The black stripe too, extending from the eyes to the mouth, remains at all seasons of the year. The hair along the backbone is longer than on any other part of the body.

The head of the chamois exhibits in its construction a wonderful blending of strength and lightness. The frontal boncs are so slight that a rap with the knuckles would be sufficient to shatter them. To make them strong, however, a second set is thrown over the first, and the space between divided into arched cells, the roof being upheld by substantial girders of solid bone. "The system which nature has here adopted," says a gentleman well acquainted with the subject, "is exemplified in the cells in the upper part of the tube that forms the Britannia Bridge. Just as those thin iron plates would separately be unable to bear much, but, placed above and united to each other, present an amount of strength and firmness capable of resisting almost any opposing force, so these fine this bones of the chamois' head, thus beautifully united by an arched cellular construction, become as firm as the rock on which the creature stands, and are at the same time so light as not to hinder any of its agile movements. The arcned girders which occupy the space between the upper and lower surface rise, bridge-like, with a spiral twist, and here and there a flying buttress will give additional strength to the walls, or a lateral arch help to support the vault above."

The horns of the chamois are equally curious in their construction. Up to a certain part the horn is hollow, and thence to the point it is dense and solid. The hollow part fits over a bony protuberance growing out of the skull itself. The horns of a full-grown buck measure about seven inches in length, the points being extremely sharp and hooked backwards. Among much other nonsensical belief connected with the chamois is, that its horns are so crooked to enable it to hitch on to the rocky ledges, in places where the animal cannot find certain foot-hold. At first sight it would seem that as weapons of offence or defence these back-turned horns would be of little avail. THis is not the case, however. When fighting the chamois lowers his horns under the throat of his antagonist, or turns his head sideways that the sharp points may come against his shoulder, and then, drawing them back, manages to inflict most formidable gashes.

The horns of the male chamois are thicker and altogether strongerlooking than those of the female; they do not diverge from each other in so straight a line as hers, but describe a slight curve as they rise upward and apart from each other. The horns of the doe are not so abruptly hooked as those of her mate, whose appearance is much more resolute and daring than hers.

Chamois hunters speak of the marvellously keen sight and scent of their fleet game :--- "A chamois when dashing down the mountain will suddenly stop as if struck by a thunder-bolt some yards from the spot where recent human foot-prints are to be found in the snow, and turning scared away, rush off immediately in an opposite direction. A rolling stone or a spoken word at once attracts their attention, and they will look and listen to discover whence the sound has come for an incredibly long time, gazing fixedly in one direction quite immoveable : and if it happen to be towards something in your neighbourhood that their attention has been attracted, you must lie still and close indeed to escape their observation. The eyes of the whole herd will be fixed on the spot with a long steady stare, and as you anxiously watch them from afar they almost look like fragments of rock, so motionless are they. You begin to hope they have found no cause for alarm, when, "Phew!" the sharp whistle tells they have fathomed the mystery, and away they move to the precipitous rocks overhead."

The appearance of the chamois whilst walking over a level patch is extremely clumsy and ungraceful. The cause is evident. In the first

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place its hoofs, shaped like those of the sheep, but longer and more pointed, are calculated for sliding rather than stepping; and in the second, its hinder legs have every appearance of being longer than the fore. This, when the animal is standing still or walking on a level, gives it an awkward and crouching appearance, especially as, despite the bending of the joints of the hinder legs, the croup is somewhat higher than the fore part of its body; indeed a chamois thus seen seems as though he had partly composed his limbs to lie down, and was lazily dragging along till he found a spot that suited him. A hunter a-foot would probably overtake a chamois fleeing over a plain, but among its native ice-hills the case is very different. The true purpose of its awkward looking hind-legs then appears. Not only do they serve as a magnificent pair of springs, enabling him to perform miraculous flying leaps from tip to tip of the chasm-parted crags, they break the fall when leaping from a great height, and enable him to alight with freedom. A perpendicular wall of rock, smooth as glass, twelve or fifteen feet in height, is no impediment to the chamois' upward flight. With a tremendous bound he will leap against the slippery wall, and, striking his hinder hoofs against it with a renewed spring, rebound again in an opposite direction to some higher pinnacle, and there find firm footing on a patch no larger than could be covered by a man's hands. Should he feel himself insecure even here, and at the other side of his giddy pedestal nothing should exist but a sudden slope of five hundred feet of unblemished ice, he will take a great leap and, alighting on his four sharp closely-gathered hoofs, come to the bottom of the pathless hill with the speed of a bow-shot.

It is somewhat singular that, to an animal inhabiting the very heart of Europe, should attach so much of mystery and romance and superstition as belongs to this magnificent little mountain antelope. One is not so astonished to hear conflicting accounts of the habits and peculiarities of the Oryx, and a few other animals dwelling in regions either almost inaccessible to man, or so barren, or thirsty, or pestiferous, as to jeopardize his life should he linger to make examination and inquiries. In such cases much of speculation and guess is sure to be mixed with facts derived from personal observation; but of a creature whose home is little more than a week's journey from the Strand, one might reasonably expect something approaching correct intelligence,

A writer of comparatively recent date (the author of "A New and Perfect Art of Venery") endeavours to account for the veil of mystery that envelopes the chamois by the fact of "the chamois hunter being generally a rude uncultivated being; and that, as to naturalists, they have seldom had an opportunity of observing this animal in its solitary and dangerous haunts." The writer then goes on to describe certain habits of the chamois which, without doubt, no naturalist nor indeed any one else ever had an "opportunity of observing." "One really great peculiarity," says he, "is the way in which the chamois cross the fields of snow without sinking in. On account of their narrow and sharply pointed hoofs they would naturally fall through, and the snow would be unable to carry them. They therefore hasten their flight in the following cunning manner. The last chamois jumps on the back of the one before him, passes in this way over the backs of all the others and then places himself at their head; the last but one does the same and the others follow in order, and in this manner they have soon passed over such a field of snow." One can hardly understand, however, the impetuous chamois being guilty of so slow and bungling a proceeding, to say nothing of the silliness of an animal, with his keen instinctive wits about him, coolly standing on ground too yielding to admit of his passing over it at a gallop, to be driven in inextricably by the weight of his fellows passing over his back. The intelligent author of the "Perfect Art" must have been mistaken. What he saw was not a troop of grave and elderly chamois on a business journey, but a few skittish young fawns enjoying a game at "leap frog," which is with them as common a game as is "hop scotch" and "cricket."

The same authority ruthlessly betrays the mysteries of the chamois hunter's craft. "The most dangerous chase of all is that of the chamois. The hunter must manage all alone, as neither man nor dog can be of any service to him. His accoutrements consist of an old coat, a bag with dry bread and cheese and meat, a gun, his hunting-knife, and a pair of irons for the feet. He then drives the chamois from one crag to another, making them always mount higher, climbs after them and shoots them if he can, or if he finds it necessary; but if that should not be the case, and he has driven one so far that it is no longer able to elude him, he approaches quite close, puts his hunting-knife to its side, which the chamois of its own accord pushes into its body, and then falls down headlong from the rock. . . When the hunter can get neither forwards nor backwards and cannot save himself by a leap, nought is left him but to fling off everything, and, wounding the soles of his feet, cause the blood to flow, so that by its stickiness he may be enabled to hold himself better on the slippery rocks."

The food of the chamois consists of herbs which grow on the mountains, and buds and shoots of the latschen; when, however, the winter sets in so fiercely that every green thing on the exposed mountain-top perishes, the chamois will shift its quarters to the woods near the base of the mountain, and there subsist on grass and leaves. An odorous dark-coloured ball is found in the stomach of the chamois, and probably owes its formation to the fibrous and resinous nature of the substances on which it feeds.

The young are born in May, the chamois doe having sometimes two kids, but frequently but one, at a birth. The pairing season is November, the period of gestation being twenty weeks. It is only about November that the full grown patriarchal bucks roam at large-the remaining portion of the year keeping close in the most secluded and inaccessible places. Some of these bucks have magnificent horns, and weigh as much as eighty pounds. The hunter, however, whose "soaring ambition" would prompt him to load his reicksack with one such carcase must be well assured of his nerve and endurance; for, in addition to the extra cold and blinding snow prevalent at this season, the animal he is pursuing is no mere kid, but a wary beast who has probably been hunted before many a time, and may possibly lead the hunter into difficulties. In the ardour of parsuit, and alone, it is easy enough to fall into a terrible trap. A spot may be seen a few feet below you easy of attainment by sliding or jumping, but once down you find yourself in a perfect box without an outlet, and whose smooth flat walls you slid down with so little difficulty, but can never slide up. There is no help for you. Don't attempt. to shout for aid; nobody is within five miles of earshot, except indeed it be your enemy, the buck chamois, who will-as in my

opinion he has a perfect right to-merely wag his tail at your dilemma; don't maim your fingers, and bruise and pain your doomed carcase in an insane attempt to climb out of your trap-you can't do it. You can do nothing but sit down and wait for death, who will doubtless come to you on the wings of the fierce north wind, at midnight.

At the pairing season a sort of bladder beneath the skin near the root of the buck's horns developes itself. The bladder contains a lymph of a strong musk-like smell, and if shot at this season the skip of the head will retain the scent for many years. The bucks, incited by jealousy, have most tremendous contests at these scented periods, and the hunter who while lying in ambush can well imitate the chamois love-call, may almost depend on bringing a pugnacious buck within range of his gun. Another mode of bringing the chamois within bullet-range, is simply to attach a hat or a handkerchief to your staff and set it up amongst a heap of stones. "Many a time," says an old hunter, "have I done so, when out alone, and wishing to attract their attention in one particular direction, while I got round near them in another. There is no animal more curious than the chamois; if he sees something he has not observed before, he looks and looks to make out what it is. They will stare at and examine a thing for hours in this way; and they are then so busied with the novelty that they forget their usual caution and watchfulness, and are approached with comparative ease."

When the chamois hunter wounds his game badly he does not follow it, but, making with all speed for the nearest high place, keeps the animal in sight through his glass, well knowing that it will presently lie down the better to bear the wound, and that the wound will presently so stiffen as to prevent the poor animal rising to do anything but limp lamely; whereas if he persisted in chasing the stricken chamois in hope to get another shot at it, the maddened creature would dare the most dangerous passes in order to escape, and either gain a position from which it is impossible to dislodge it, or from whence, if you can shoot it, it will topple into a misty gulf a thousand feet, mashing horns and bones and flesh to a pulp. Singularly enough, however, even under such circumstances the skin will be found perfectly unbroken. It is a peculiarity of the skin of the chamois that it is of a uniform thickness throughout, and, considering its substance, certainly tougher than that of any other animal.

Ascending the rocky steeps in chase of the chamois is infinitely easier than *descending* them. In the former case you have your work *before* you. If the ascent is so steep as to oblige you to take a zigzag direction, you plant your pole beside you, on a level with your hips, the upper part pointing outward, while your body, resting with all its weight upon it, inclines inwards towards the mountain; but in descending, your back is invariably to the steep, and you are ever looking forwards and below you into the terrible depths beneath; your pole is planted behind you, and you are at the mercy of the anchorage its point may find, and of the solitary litschenstumps your anxious feet may encounter.

Of all the pretty things ever written concerning the chamois, either in prose or verse (the collection would make a bulky volume), the very prettiest, and, in my opinion, the cleverest, is comprised in a little poetic story by Miss Crewdner. As to break it would be to spoil it, and to leave it out a pity, there is nothing left but to quote it entire.

In a sunny alpine valley, 'Neath the snowy Wetterhorn See a maiden by a châlet Playing with a Gemzé * fawn. How he pricks his ears to hear her, How his soft eyes flash with pride, As she tells him he is dearer Than the whole wide world beside ; Dearer than the lambkins gentle, Dearer than the frisking kids, Or the pigeon on the lintel, Coming-going-as she bids. Dearer than the first spring lily Peeping o'er the snowy fell, Dearer than his little Willie To the heart of William Tell.

By a gushing glacier fountain On the giant Wetterhorn, See, th Midst the snow-fields of the mountain By a sma

Was the little Gemzé born ; And the mother, though the mildest And the gentlest of the herd, Was the fleetest and the wildest, And as lightsome as a bird. But the gazer watched her gliding In the silence of the dawn, Seeking for a place of hiding For her little tender fawn. So he marked her, all unheeding, (Swift and sure the bolt of death) And he bore her, dead and bleeding, To his Alpine home beneath, And the orphan Gemze followed, Calling her with plaintive bleat, O'er the knolls and through the hollows, Trotting on with trembling feet.

See, the cabin latch is raised By a small and gentle hand,

* In all the German-Swiss cantons, except those in which French is spoken. the Mamois is invariably called Gemzé. And the face that upward gazed Had a smile serene and bland ; Bertha was the Switzer's daughter, And herself an orphan child ; But her sorrows all had taught her To be gentle, kind, and mild. You might see a tear-drop quivering, In her honest eye of blue, As she took the stranger, shivering, To her heart so warm and true. "I will be thy mother, sweetest," To the fawn she whispered low, "I will heed thee when thou bleatest, And will solace all thy woe." Then the tottering Gemzé, stealing Towards her, seemed to understand. Gazing on her face and kneeling, Placed his nose within her hand !

Every day the Switzer maiden Shared with him her milk and bread, Every night the fawn is laid on Moss and ling beside her bed. Blue as mountain periwinkle Is the riband round its throat. Where a little bell doth tinkle With a shrill and silvery note, When the morning light is flushing Wetterhorn so cold and pale, Or when evening shades are hushing All the voices of the vale; You might hear the maiden singing To her happy Gemzé fawn, While the kids and lambs she's bringing Up or down the thymy lawn.

Spring is come, and little Bertha With her chamois by her side, Up the mountain wandered further Than the narrow pathway guide. Every step is paved with flowers, Here the bright mezereon glows, Here the tiger-lily towers, And the mountain cistus blows; Here the royal eagle rushes From his eyric overhead, There the roaring torrent gushes Madly o'er its craggy bed. Hark! from whence that distant bleating. Like a whistle clear and shrill ? Gemz6! Ah, thy heart is beating With a wild and sudden thrill ! Voices of thy brothers scouring Over sparkling fields of ice, Where the snow-white peaks are towering O'er the shaggy precipice.

Bertha smiled to see him listening (Arching neck, and quivering ear, Panting chest, and bright eyes glistening, To that whistle wild and clear. Little knew she that it severed All that bound him to the glen, That her gentle bands are shivered, And the tame one-wild again / To the next wild bleat that soundeth, Makes he answer, strong and shrill; Wild as wildest off he boundeth, Fleet as fleetest, o'er the hill. "Gemzé! Gemzé! Kommt, mein lieber!" Echoes faint from height to height ; Dry thy tears, sweet Bertha ! never Will he glance again in sight ; But when paling stars are twinking In the twilight of the morn, Thou may'st hear his bell a-tinkling 'Midst the snows of Wetterhorn. And the kindness thou bestowest On the helpless, thou shalt prove, Somehow, when thou little knowest, In a blessing from above.

It is by no means hard to understand the awe with which the chamois hunter is regarded even amongst the valley dwellers, who tend their herds and follow their simple trades at the feet of the giants, on whose hoary heads, high amongst the clouds, roam the wondrous deer. He departs in the morning, toiling up the mountain side, his bignailed boots leaving a deep print in the snow; across his shoulders is slung his trusty rifle and his "reïck-sack," or bag, containing his spyglass, his drinking-cup, his leathern bag-full of bullets, &c. and tight grasped in his hand is his iron-shod staff. Up he goes, and by-andbye is lost in the mists and to the world-to his world, to his wife and little ones, who watch his departure, perhaps for a day, perhaps for three days, perhaps for ever. Death with a thousand grim mouths is waiting for him up there; the mouths yawn for him at every stride,-he has often no more between them and himself than a foot of ice-covered, slippery rock. "He is a silent and rearved man," say they who have made the acquaintance of the chamois hunter. Who can wonder at it? Who shall tell the wondrous sights he has seen? Who knows, when he returns at night to his hut in the valley, with the good chamois lading his reïck-sack, who knows how close the hunter has been that day to death?--by what twig, or accidental stone, or other of God's good providences, he has been saved on the verge of the spiky gulf a thousand feet deep? They can only know it from the hunter's own mouth, and he has long since ceased to regard them as marvels, or thingworth relating.

The chamois hunter has been thus vividly described. "A tall man, gaunt and bony, his brown and sinewy knees were bare and scratched and scarred; his beard was black and long, his hair shaggy, and hunger was in his face; the whole man looked as if he had just escaped from the den of a wolf, where he had lain starved, and in daily expectation of being eaten. But it was his eyes, the wild, staring fixedness of his eyes, that kept mine gazing on him; the bent eagle nose, the high fleshless cheek bones added to their power. There was no fierceness in them, nor were they greedy eyes, but they were those of a man who had been snatched from a horrible death, and in whom the recollection was not effacedy nor likely to he. They were always wide open; the whole creature seemed vigilant, and awaiting at any moment to wrestle with fate. But this was observable in the eyes alone, not in the other features, for the nostrils were not distended, nor the lips clenched, as they must have been to harmonize with the meaning that was in his eyes."

On the plain the chamois hunter is out of his element. He is like a mariner ashore, and regards the tame and uncongenial objects that surround him with the same dull and apathetic air. Talk to him of the calm enjoyment, the placid pleasure, afforded by a life-long sojourn in the grassy valleys, and he will yawn, and shrug his shoulders, at the same time regarding you pretty much as Jack Kattlin, of her Majesty's war-sloop, "Thunderer," regards the slop-tailor of Ratcliffe Highway. The chamois hunter yearns to be *aloft* as carnestly as the sailor yearns to be afloat, and by his own peculiar standard he measures earthly happiness. It is time, however, to describe the chase of this wonderful stag of the mountains, that rules the destinies of hundreds of bold men, and whose hiding and abiding places are the depths and hollows of great slippery rocks—mighty grave-stones all of them—whose treacherous sides, shelving sheer into misty gulfs, are more eloquent than legends cut with the mason's chisel.

It must not be imagined that hunting the chamois is nothing better than a pretty sport, a romantic pastime indulged in by mountaindwellers. It is a trade, a means to win bread, and shoes, and clothes, and to pay house-rent; as is shoemaking and tailoring. As a trade it has to be learnt. At Munich and other places are grounds set apart for shooting practice; there is the fixed target and the "running stag:" this latter is the wooden figure of a stag, mounted on wheels, and running in grooves; on the stag's shoulder is a target, with a heart painted on it. The grooves cross an open space between tall dense bushes, and at a given signal the wooden stag is loosed, and made to dart past the open space between the bushes, just about as fast as a living stag would run, the task being to lodge a bullet in the heart painted on the shoulder, as the figure whizzes past.

The fixed target is eighteen inches in diameter, and the bulls-eye six. Within the bulls-eye, however, are three other circles, equidistant from each other, the exact centre being marked by the head of a shining copper pin. The range is generally fixed at 125 yards. As the marksman fires, the hole he makes in the target is plugged with a pellet of wood, bearing a number, 1, 2, 3, or 4, according to its nearness to the centre. Every competitor is entitled to a certain number of shots gratis, and beyond that he shoots as often as he pleases, paying about twopence for each shot. Every marksman is furnished with a ticket bearing the same number as the pellet that plugs the shot hole he has made in the target, and when the shooting is over the money collected is parted into lots, and distributed
according to the quality of the shooting. Thus, supposing the money in hand admits of a prize of sixpence for each ring, and the marksman has the skill to penetrate the number four ring (the inner one) five times, the three ring ten times, the two ring twenty times, and the outer ring of all that counts—the number one—thirty times; that would amount to a hundred rings altogether, and earn for the gunner fifty shillings; deduct, say ninety twopences, shot money, and he is, expences paid, thirty-five shillings a richer man than when he began. As of course it would be an easy matter for a crafty old gunner to come in and carry off the whole of the prizes, the target keeper may select who may and who may not compete.

Charles Boner, a gentleman who for a considerable period hunted chamois in the mountains of Bavaria, and who on account of his skill as a shot, and his cool daring under circumstances of the most frightful peril, gained the respect and admiration even of the oldest and most experienced chamois hunters, relates the following hunting adventure experienced by himself and a companion on the Krammets Berg. Half the morning had been fruitlessly consumed by our hunters when, at last, having climbed a dizzy eminence, they espied far below them a solitary buck lying down among some scattered latschen. "We noted well where the chamois lay, for though we could see the spot plainly from our eminence, we should soon lose sight of it on getting lower. It was to the left of a stony channel worn by the torrent in the mountain's side; this, therefore, and a pine about two hundred yards further off, were taken as landmarks. One more look to be quite sure of the point, and we went down the steep. Broken as the surface was I could not but think how admirably we both crept along. Not a stone rolled; at each step the heavy nailed sole came upon the ground like a paw of velvet; neither of us made use of his pole lest it might clink against the rock and cause a sound. Not once did we slip, and when the ground was so uneven that we had to step lower than usual, each steadied himself with his hand, and then the descending foot was dropped gently to the ground. A woman's step in a sick chamber is not more lovingly gentle than was that of us two iron-shod male creatures." With all their care, however, the buck had somehow got wind of his stalkers, and when they arrived at the landmarks-the tree and the water-worn channel, not a living thing was in sight, and there was nothing left but to retrace their steps and

regain the topmost ridge of the "clam" or precipice. From this height another buck was sighted. It was a long shot, but fear of scaring it away as the first was scared decided Mr. Boner to fire at once: he did so, but the strong wind rushing through the valley, caused his bullet to swerve, and instead of piercing its shoulder and dropping it on the spot, the fore leg of the poor animal was merely broken. It moved a few steps forward, and then went behind a rock, and out of sight: so Boner intimated to his companion, Xavier, that he would climb down the clam, and after putting the chamois out of its misery, bring it up. Xavier however objected. Nobody, he said, but the most experienced hunter would venture to such a spot as where the wounded chamois had taken refuge, and even by them the passage would not be risked except there was no help for it. Boner, however, was obstinate, so the passage was begun, the native hunter, Xavier, accompanying his headstrong friend.

"At last we were in the bed of the clam, and a wild spot it was, much deeper, too, than I had believed, and wilder; and jagged rocks, now that I stood beside them, had grown to twice the size they seemed before. There was no verdure anywhere, all was sharp bleak grey stone. It was an uncomfortable feeling to look up at the blue sky, and to feel yourself in an abyss of rocks, with no visible outlet by which to regain the living world; for here was no vestige even of life. To get up the rocks where the chamois lay was indeed not so easy as I had thought. Though none of them were high, some of them were almost perpendicular, and every little projection sharp as a needle; but what was worse than all, each piece of stone that might have served to hold by, or as a support to rest the foot on, crumbled away beneath a moderate pressure, so that if you placed your toe or the side of your foot on such a little projection, hardly broader, perhaps, than the face of your watch, but still sufficient, if firm, to help you upwards, just when you thought it might he trusted, and your whole weight leaned upon the edge, it would suddenly break like a dry stick ; and if you happened to be some way up, you came sliding down again, tearing your knees, while your hands clutched at the sharp points to save yourself from falling to the bottom. Presently we reached a narrow ledge, and Xavier, who was in advance, sprang thence to a small crag opposite.

"The space to be cleared was nothing, but it required great nicety

in landing properly on the crag, and in stopping the instant your feet rested on it, so that you might not topple over the other side. The pinnacle of rock was very narrow, and all below sharp and pointed. Xavier, with his rifle well up behind his back, and his pole in his right hand, was over in a second, and stood as firm and upright on his lofty narrow footing as though he had merely stept across. Should I follow ? If I made the jump with too much impetus I should not be able to stop myself, and then —!

"Is there no other way, Xavier, of reaching where you are but by jumping over?"

"No," replied he, "you cannot cross except by jumping: it isn't wide."

"No; but the other side--that's the thing: it is deep, is it not ?"

"Why yes, rather deep: but come, you can do it."

"I feel I cannot, so will not try," I replied, and began to look for some other way. The cleft itself across which Xavier sprang was only about twelve or fourteen feet deep. I was at the bottom of $\dot{\mathbf{t}}$, and while standing between the two rocks I thought I might manage to climb upwards as a sweep passes up a perpendicular flue, to which this place had great resemblance. I was nearing the top of my chimney when the chamois, seeing Xavier approach, leapt down into the chasm below, so that we both had our trouble for nothing. Coming down the chimney, it not being narrow enough, I found to be more difficult work than gotting up.

"The chamois was now some distance below us, so we climbed down to a broad slanting surface of rock like an immense table, one end of which was lifted very high. The plane was so inclined that to walk there was hardly possible. Every now and then the brittle surface would crack off; however, difficult as it was, and in spite of a slip or two, I managed to proceed. At last I was obliged to go on all fours. Some minutes after I began to slip Lackward. The stone crumbled away as it came in contact with my thickly nailed shoes, which I tried to dig into the rock and thus stop my descent. I strove to seize on every little inequality regardless of the sharp edges; but as my fingers, bent convulsively like talons, scraped the stone, it crumbled off as though it had been baked clay, tearing the skin like ribands from my fingers, and cutting into the flesh. Having let go my pole I heard it slipping down behind me, its iron point clanging as it went; and then 't flew over the ledge, bounding into the depths below; in a moment I must follow, for with all my endeavours I was unable to stop myself. I knew the brink was near, and expected each moment to feel my feet in the air. Xavier, who by some means or another had got higher, looked round when he heard my stick rebounding from the rock, and saw my position. To help was impossible; indeed he might himself slip, and in another moment come down upon me. He looked and said nothing, awaiting the result of the next second in silence.

"I had made up my mind to go over the brink and thought all was lost, when suddenly one foot, as I still kept trying to hold by something, was stopped by a little inequality arresting my descent. I was very thankful, but still feared the piece of rock against which my foot leaned might crumble like the rest, and let me slip further. Hardly venturing to move lest the motion might break it off, I gently turned my head to see how far I was from the brink : my foot had stopped not a couple of inches from the edge of the rock; but this much further and I should have gone backwards into it. With the utmost caution I drew up first one knee and then the other, and again crawled forward.

"At length we reached the place where the chamois was last seen, and binding up my torn fingers in order not to confound the drops of blood falling from them with that of the chamois, tracked the wounded animal to a hollow so jagged and broken, that there was not a place broad enough to stand upon which was not sharp and cutting; at last, however, we reached him as I was glad to find, dead."



THE MOOSE.

This magnificent deer of North America is the largest of the family, attaining when at full growth a height of from seventeen to eighteen hands at the shoulder, and weighing twelve hundred pounds. The graceful form, however, which so eminently distinguishes the rest of his congeners has been denied the moose. His shape is ungainly and square-looking, his coat is hanging and coarse, his mane stiff and his antlers gigantic, and he has altogether an extremely antique and antediluvian appearance.

The coat of the moose is composed of long stiff bristles of a light ash colour near the roots, and is of a dark russet brown colour, which in the bull, in winter, changes to a glossy black. From behind the ears down the short neck and part of the back extends a thick harsh mane, nearly a foot in length. The hair covering the belly and the inside of the legs is of a sandy colour. One of the most curious features which distinguish the moose is a hanging sort of pouch, the "bell" as it is termed, pendant from the spot where the junction of the head and neck occurs. This "bell" is covered with long black hair giving it the appearance of a misplaced beard

The antlers of the bull moose often measure four feet from tip to tip, and weigh sometimes as much as sixty pounds. They are massive and palmated, and fringed with short spikes or tines. The lowest tine extends forward over the forehead and supplies the place of the brow antler. In April their horns begin to make their appearance, by September they have attained their full growth, and towards the end of January they are shed, and the head of the bull moose is as barren of decoration as that of his mate. Except however at the pairing season these formidable horns are never used offensively; even when pursued and wounded the moose uses his horns against the hunter in so awkward a manner that it is not a very difficu't matter to avoid them. But in the "calling" season, when his ponderous frame trembles with jealous rage, the bloodiest battles are fought amongst themselves; indeed, hunters having killed a moose have found his flesh literally worthless from the tremendous gashes it has received in the course of its love quarrels. It is said the Indians when "calling," which is effected by imitating the plaintive cry of the female upon a trumpet of birch-bark (hereafter more fully described), and not succeeding in

laring the suspicious animal within range of their missiles, change their tactics, and, by imitating the note of the bull moose, induce him to forget his natural wariness, and come headlong on to see the daring moose that presumes to come courting in his district.

The food of the moose consists during the summer months of the leaves and tender branches of such shrubs as abound in his native forests of Eastern North America (to which region he is strictly confined, as is the wapiti to the prairies of Western America). In the winter season he subsists on the tops of young shoots, pulling them into his mouth by his prehensile upper hip (or mouffle), and biting them off. When, however, the moose is hard pressed by hunger he is not so dainty, and will pick a meal from the first green bough he meets,-except it be the spruce; that he never eats. Unless the grass is very tall, or growing on a convenient bank, the moose will seldom attempt to crop it, his neck being too short to admit of his performing the operation of grazing with anything like comfort; he can graze only by straddling his legs and stooping awkwardly, which may be taken as certain evidence that green shoots and tender buds, and not grasses, are his proper food.

As soon as the winter snow begins to fall, the moose, discontinuing their wandering habits, herd together, and form what is termed a "moose yard," that is, they select a great patch of forest, fruitful in brushwood of a deciduous nature, and diligently tread down the snow in a circle round about it. By-and-bye there is quite an embankment of snow encircling the yard, securing them from the attacks of wild beasts, for even the gaunt wolf will pause at the icy barrier, nor dare to leap in amongst the array of mighty horns ready to receive him. But, alas! the cunningly-formed barricade is bane as well as antidote to the poor moose, who is presently in a worse position, even than the lean mouse who crept through a tiny crevice in the meal cask and ate till he grew so fat that escape was impossible. The mouse was all right in the cask,-there was plenty of food and snug quarters, all perfectly satisfactory,-till somebody discovered it. As with the mouse so with the moose. It is all right within its snow walls till somebody discovers it, and that somebody is the hunter. If he is alone, he will do no more than make a note of the whereabouts of the yard, and take his departure, notching a tree here and there that he may easily find his way to it again. Then he returns to

his friends, and, either for friendship's sake or some more worldy consideration, lets a select few into the secret. There is no occasion for the least hurry; the longer the cattle are allowed to live the fatter they will become, and as for *escaping* there is very little more chance of that than though they were in a meadow with a six-foot fence all round it. At last the fatal day comes, and, armed with their guns, the hunters set out, and for weeks after moose meat fresh and dried is plentiful for miles round.

In the summer months the moose frequently takes to the water, partly to ease his blistered hide, tormented by the myriads of black flies and mosquitoes which swarm in the woods in the hot season, and partly for the sake of the dainty food he may crop as he bathes—the leaves and tendrils of water lilies and other aquatic plants. He is a fast swimmer, and even when disturbed by the hunter in his light cance, will, instead of endcavouring as speedily as possible to plant his feet on terra-firma and run for his life, keep to the lake and plough along at a rate that leaves the Indian little time to put down his paddles and take to his gun.

Although so extremely shy, and averse to the company even of the ordinary animals of the forest, when taken young, the moose may be easily and thoroughly domesticated. While residing at Halifax, Mr. Hardy had brought to him a little animal of this species, about eight days old. The little prisoner was fed, by means of a sucking bottle, on cow's milk diluted with water, and thickened with Indian meal. As it grew older more substantial fare was offered it, "the young shoots of maples, moosewood, dogwood, and witherod, of the leaves and berries of which last two shrubs moose are especially fond on account of their extreme bitterness. A lump of rock salt appeared to afford him great satisfaction, and might have been conducive to health." Never was moose more tenderly cared for. "In the very hot days of summer, when he appeared to miss the cool plunge, in the lake in which these animals in a wild condition always indulge in hot weather, I continually caused buckets of water to be thrown over him.' Whether or no the last-mentioned process afforded the little moose "great satisfaction," its humane fosterer sayeth not. One would be inclined, however, to think that the substitute hardly came up to the actual thing. One is debarred the privilege of trying the experiment on a moose, but I fancy the animal would enjoy the buckets about as

well as a young donkey, used to disporting in the dust, would enjoy being pelted with mud-clods.

The adopted moose being of a singularly robust constitution, survived for eight months under the infliction of the above mentioned and similar violent favours, till at last, "in November, he being at the time eight months old, and in perfectly excellent health and condition, I adopted by mischance an expedient which caused his untimely, and, by me, much regretted death. The winter having set in, and it being inconvenient to send into the woods for a supply of boughs, I resolved to try **substitute**. I fixed upon turnips, of which a pailful was given him one evening, and which he appeared to relish greatly. Next morning, to my dismay, I found the poor creature dead ! On inquiry, I discovered, too late, that turnips given to cattle in too great quantities will often cause death.

"So tame was the young moose in question that he would come into a room and jump several times over chairs for a piece of bread. He delighted too in a pipe of tebacco, and would rub his head with great satisfaction against the individual who would favour him by puffing a mouthful of smoke into his face. No palings could keep him from gardens, in which, when not watched, he would constantly be found revelling on the boughs of currant and lilac bushes; in fact, tasting fruit and flowers almost indiscriminately. When approached for the purpose of being turned out, the cunning little brute would immediately lie down, from which position, his hide being as callous as that of a jackass, he could be got up with difficulty."

Other instances are related of the moose becoming not only a domesticated animal but a useful beast of burden. An innkeeper on the Truro road, Halifax, possessed one that would consent to be harnessed to a sledge, which he would draw with marvellous speed. When not wanted, this tame moose was allowed his liberty, in the enjoyment of which he would often swim across the Great Lake to the opposite shore, about two miles distant, whence he would return at the sound of the "conch," which is generally used in the interior of Nova Scotia to call labourers from the woods.

There are five methods of hunting the moose, "creeping," "calling," "running," bringing to bay with dogs, and snaring. The first mentioned systems are orthodox, but the two latter are despised by the true sportsman, who regards both operations as simple posching.

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Snaring is managed as follows : the trees are felled in a line for about a hundred yards in the woods. Falling on one another, they form a fence some five or six feet high, and several gaps are made in this fence of sufficient width to admit of the passage of a moose. At each of the gaps a young tree is bent down by the united force of several men, and fastened to a catch attached to a false platform. A noosed rope is fastened to the end of the tree and suspended round the opening. The unfortunate moose, after walking along the fence till he arrives at a gap, attempts to pass through, but, stepping on the platform, the tree flies back, drawing the noose tightly round his head or legs. Sometimes a simple rope, with a running noose, is fastened to a tree and suspended round an opening in the bushes leading to a "barren"-for moose often form regular paths, like those of rabbits-by which they enter and depart from small barrens. The two worst features of moose-snaring are the torture inflicted on the animal, and the wanton waste of a valuable carcase and skin which so frequently occurs. The carcase of a snared moose is generally comparatively worthless, from the bruising it receives during the powerful struggles of the animal to escape, especially if it be entangled by the legs only; and quite as often the snarer through negligence, or having more important business to see to, at last discovers the offensive body of a fine bull moose, weighing twelve hundred pounds, and considerably worse than useless.

"Chasing moose with dogs," says an experienced hunter, "is such an unsportsmanlike proceeding that it is seldom practised except by the settlers, who love to hear the yelping of their own curs, and to destroy a moose from mere wantonness, when they ought to be attending to their unprogressing farm and clearings. The plan adopted is this : a party of these people go out into the woods with a pack of all the big long-legged curs that can be mustered in the neighbourhood. Surrounding some hard wood hill," in which they, know moose are yarded, they turn in the dogs. The moose are at once started, and, should they get past the gunners, are quietly brought to bay and shot. A dog will make more noise after moose than after any other game. Nothing scares moose so much as the voice of a dog, and a pack of curs yelping through the woods will so alarm the moose in the surrounding country, that they will leave it never to return." This practice as well as snaring, is prohibited by law.

"Calling," is one of the most successful methods of moose chase; hut, as already intimated, can only be practised during the sweethearting season, which lasts from the beginning of September to the end of October. The fierce love of the moose overrides his natural shyness and caution, and he will brave any danger to reply to the norting "quoh, quoorh" of the female of his kind. At ordinary seasons, the hunter having brought down with his rifle one moose, or even having fired the piece fruitlessly, would never dream of finding an opportunity for another shot till he has travelled many a mile from the theroughly scared neighbourhood. But at the love-making season, the Indian with his artificial call may lure the bull within range of his bullets, may wound him, dash after him noisily through brake and thicket, at the same time yelling, as an Indian seems by nature obliged when hunting even a four-footed enemy, fire his piece again-bang ! bang ! both barrels till the woods echo again, and within five minutes he will again mount a tree with his birch-bark trumpet, to be at once answered by a blundering intoxicated bull, who comes trotting up to see who it is "quoh quohing." It is a curious fact that a bull moose, if he be five miles distant when he hears the first call, will, even should it not be repeated, come in a perfectly straight course, through dense forest and brooks, and over rocky barrens, to within a few yards of the very spot where the call had been made.

A ludicrous story is related of a white settler who thought he would try his hand at "calling," as moose were numerous in the woods at the back of his clearing. To his surprise, he obtained an answer to his first call, and the moose came in broad daylight right up to the man, who was so taken aback that he did not fire till the animal was nearly upon him. He then discharged his gun without taking aim, and of course missed the moose, who attacked him at once, charging him and knocking him over. He was badly bruised; but by good luck escaped having his skull fractured by a blow from the fore-leg of the powerful animal. The fore-leg is the common weapon used by the moose when attacking a man or a dog. Rearing up on his hindlegs, he strikes downwards with the fore-legs with amazing force and velocity. A blow given by a full grown moose would, if delivered on the head of a man, fracture his skull; and a dog has been thoroughly lisabled by a blow from a young moose not more than a week old.

"Nothing," says a writer thoroughly acquainted with his subject

"nothing can be more productive of feelings of excitement, than sitting wrapped in a blanket on the edge of a forest-girt plain; the moon piercing through mists of gently-falling dew, and faintly illuminating the wild scene; now flashing on the white surface of a granite boulder, and then sparkling in the water of the swamp, and on the bedewed mounds of moss and clumps of ground-laurel; nothing can be more exciting, when the wild notes of the Indian's call, rending the calm air, have dispersed over the echoing forests, than the succeeding moments of waiting for an answer. And then, when far away from over the hills, and through the dense fir forests, comes the booming answer of the bull-moose; when you hear the distant crashing of branches, and the rattling of the massive antlers against the trees; and when at length the monarch of the American forest emerges and stands snorting and bellowing on the open barren, his proportions looming gigantic through the hazy atmosphere-then does the blood course through your veins as it never did before ; and, scarcely knowing what is about to happen, you grasp the ready rifle and crouch In the protecting bushes."

Calling is scl4om attempted in windy weather, as, according to moose-hunters generally, the animals are more suspicious then than at any other time, and will generally endeavour to get to leeward of the caller. The same authorities assert that no one but an Indian can call moose in a proper manner. "Because," say they, "two Indians never call exactly alike, the settlers pretend that they can call as well as an Indian. This idea is wrong. The difference of note does not signify, for the cow moose differ widely in their call; but it is in giving vent to the sound, making it appear to come from the lungs of a moose and not from a man, that the Indian excels."

It is customary for the European sportsman to hire the services of a professional Indian moose-caller, whose fixed charge is a dollar per day. One lures and the other 'shoots, the buriness being conducted as follows. Setting out over night, the hunter and his man journey till they come to what the Indian considers a favourable spot, and there, having supped, they "camp down for the night." About an hour before daybreak is the best time for calling, and by that time both are on the alert. Climbing into a tree so as to give the sound of his cell every advantage for diffusing itself through the surrounding forest, the Indian Blows a blast. If an answer is obtained and the moose seems to be approaching, the Indian either recedes or the sportsman advances a few hundred yards, the better to allay any suspicions the advancing bull may have, by the apparent distance of the cow. The bull hearing the call repeated at a greater distance than he had expected, thinks there can be no harm in getting a little closer, and is thus betrayed into the hands of the silently watching rifle-bearcr.

"Creeping" moose is only another name for stalking, and is a sport best pursued when the snow lies thickly on the ground. Healthful and exciting though it be, so much of the "roughing" process is attached to it that this branch of moose hunting is not nearly so much patronised as either of the other branches. November is the time to commence creeping, when the antlers flourish on the bull's head in all their glory. To any one, however, with a less robust constitution than an Indian it is dreadful hard work, creeping through a frozen forest with a stealth that necessitates the slowest pace, till perhaps by sun-down you discover moose "spoor," and it being too dark for further proceedings you roll yourself in your blanket and make yourself comfortable (!) for the night, with the full intention of following the long sought tracks in the morning, but, alas ! you discover on opening your eyes that during the night snow has fallen, totally obliterating the footmarks, and leaving you the choice of returning disgusted to your camp or to commence to creep again.

"Running" is a sport of a decidedly one-sided character, inasmuch as the hunter is *certain* of his game, which has not the least chance of escape. About March, when the snow lies very deep in the woods, and its surface is covered by a crust caused by the alternate influence of sun and frost, the "runner," armed with his gun and wearing lashed to his feet a pair of snow-shoes or "rackets,"—an oval frame of wood, across and across which are strung thongs and sinews, much the same, only coarser, as the ordinary racket bat is made,—with these rackets he can glide over the treacherous surface with little danger of breaking through, while the unfortunate animal it is his luck to start, breaks through the crust at every step, sometimes sinking up to his belly, abrasing his ponderous legs against the knife-like edges of the broken ice, and exhausting his giant strength by frantic efforts to plough his great body through the tenacious mass. His doom is certain. "The chase may last but an hour, or, through the clumsiness of the hunter or the nimbleness of the hunted, may continue through the entire day, but the end of it is that the hunter at last coming up with his game, finds it prostrate—quit spent and used up, and, with even less peril than belongs to the dragging from its stye and slaughtering the domestic hog, applies his murderous gun-barrel to its carcase, and spills its fevered blood upon the snow.

"No one," says Lieutenant Hardy, "has ever succeeded in imitating the call of the moose with such truthful resemblance to nature as an Indian. A white man calls in the right key, and loud enough for a moose six miles off to hear. He may even get an answer from a distant bull; but it is when the moose approaches that he fails and the Indian's tact comes into play. The cautious brute will stop sometimes a dozen times in the last half-mile before coming within range of the hunter's rifle; and then it is that those extraordinary sounds, suppressed bellowings and gruntings, which are uttered by the Indian, as if proceeding from the chest of a huge animal, allay his suspicions and cause him to come crashing wildly through the bushes to his destruction."

However, during Mr. Hardy's long sojourn in the "Pine Forests of Arcadia," he discovered that even with an Indian to "call" the moose, success was by no means guaranteed; and, judging from the many instances of this latter sort quoted by that gentleman, it would seem that the chase of that personation of cunning and wariness, the African Oryx, is, as a rule, attended with little more of vexation and disappointment. Take the following as an example.

"While there was yet daylight, Paul (a wary old Indian hunter and one of the lieutenant's attendants) proceeded to manufacture the instrument called a "call," by means of which the lowing of the cow-moose is imitated. Cutting a sheet of bark from a colossal white birch, he rolled it into a cone of about eighteen inches in length, and bound it round at the small end and again at the middle with the split fibre from the tough and pliable roots of a young spruce fir. He then tried the note of the instrument by applying it to his lips and uttering a low "quoh"—the grunt preparatory to the prolonged bellow of the cow-moose. He then ascended a tall spruce fir and seated himself on a branch near the top. Breaking off a doad bough to imitate a moose walking through thick cover, he applied the call once more to his lips and gave a short low "quoh."

"A few minutes' pause and he broke two or three branches in sharp succession, uttering another "quoh" louder than the first. Then, drawing a long breath, he commenced the plaintive cry, increasing gradually in intensity and force, which the lonely cowmoose is supposed to utter to attract the attention of her consort :

".... Quoo-o-o-oh-quoo-o-o-o-rh-quoo-o-orr.

"Away flies the startling sound, echoing through the forests. What sacribge to disturb the peace of those beautiful morning woods by a sound so loud and strange! Here, save the snap of a twig as the old Indian ascends a tree, no sounds disturb the peace of the primeval forest, other than the voices of nature from time immemorial.

"Suddenly Paul and I look at each other. We had both heard it. I hear it again, and this time quite plain.

"'Quoh-quoh-quofh.'

•It is an answer. Paul at once drops his call and rapidly descends the tree.

"'How far is he off, Paul?' whispered I, fumbling in my anxiety for a fresh cap.

"'Quite handy, not more than quarter mile way. Come here and no move till I tell you,' said the Indian dragging me quickly back to a clump of young spruces behind, in which we crowded for shelter from the quick sight of the wary brute.

"For nearly ten minutes we moved not a limb. At length Paul stood up and made another call. Again the moose answered, but his responses were suddenly ended by a sound which emanated from a hard wood hill before us, and as if a stick were rapidly drawn over a line of iron railings.

"'What on earth can that be, Paul ?'

"'Oh, very bad job this,' replied the Indian, ruefully, 'you hear um rattle um's horns?'

"'Yes, Paul; another moose, I suppose!'

"'Sarten. No good to call any wore moose, no come up now; they 'fraid of one another, they 'fraid of the fight.'

"It was as old Paul supposed; not another sound could either moose be induced to utter, so, smothering my disappointment, we returned to camp." So much for the "mull;" now for one of the many heartstirring "spins" that fell to the lot of the above-quoted indefatigable moose-hunter. "Creeping" and not "calling" was the order of the day on this occasion.

"About three hours after sundown we all left the camp; my companion with old Paul going down the lake in the canoe, whilst the two young Indians accompanied me through the woods to 'Still Water,' a stagnant muddy stream flowing into the lake through swampy fir-wood. The dark valley through which it passed was thickly carpeted by wet moss, the numerous impressions on which showed that it was a favourite resort for moose. As ther was still an hour's daylight we commenced to "creep." Presently Joe, stooping down and examining a track with unusual earnestness, beckoned to his comrade.

"'Quite fresh track, two bull and cow; they gone by jest ten minutes,' pronounced Joe. 'See here,' said he, bending down a young maple shoot bitten off at about ten feet from the ground, 'see where he make the fresh bite.'

"It was evidently cropped quite recently, for, on breaking it off an inch lower down, no difference in colour could be perceived between the fracture and where the moose had bitten it.

"'I think you put on cap now,' said the Indian, 'no tellin when we see um moose now.'

"Now begins the creeping in carnest, Jim taking the lead and we following, noiseless as snakes, in Indian file. Suddenly a distant sound strikes our cars, and we stand listening in our tracks. It is repeated—a wild roar—and appears to come over the hill to our left.

"'The moose!' said Jim, and, clearing the swamp, we dash up the hill side, the energetic waving of Jim's hand as we arrive at the summit warning us to exercise oue utmost caution. Yes! he is right. The brutes are in the valley beneath, and the forest echoes with the deep guttural bellowings of the antlered monster and the plaintive answers of his consort. Yet we in no way relaxed our former caution. We could not depend for any mistake on our being concealed by the tremendous uproar of the moose, and our course must still be shaped with due observation of the wind We descend the hill obliquely to the edge of the 'Still Water,' across which the moose has just swum. We, too, cross the water on a dead trunk that has fallen from bank to bank, and, tightly grasping our guns, crouch down and endeavour to penetrate the thickets ahead for a sight of the game. Suddenly and un expectedly we leave the dense underwood and stand on the edge of a little open valley. Jim, as I emerge from the thicket imme diately after him, bounds on one side, his arm extending and pointing. There is an enormous black mass standing behind a group of young maples at the further end of the valley. It is the bull. In a second the sight of the rifle bears upon him, and uttering an appalling roar, the huge brute sinks plunging into the laurels.

"With a shout we rush on. To our astonishment, however, he rises with another fearful roar, and, before I have time to check my speed and level the rifle once more, he has disappeared through the thicket.

"'Come on,' shouts Jim, 'we sure to get him-he badly hit.'

"There is no tracking now; the crashing branches and the roar of the enraged animal direct us, and we dash through swamps, and bound over fallen trees with desperate energy. But it is of no use; the pace was too good to last, and presently, torn and exhausted, we flung ourselves at full length on the moss, and for a while listen to our own deep breathings, and to the hoarse bellowing of the rapidly retreating moose momentarily growing fainter. Joe, the youngest Indian, a lad of extraordinary endurance, had taken my nifle and renewed the chase by himself."

After a while, however, Joe was seen returning, and without saying a word flung himself down by the side of his companions quite done up. They did not ask him what luck he had had, there it was plain enough—a piece of moose meat tied to the barrel of his gun. The particulars of the chase did not come out till the day's sport was over, and master and men reclined at their case in camp.

"When I leave you," explained Joe, "I run very hard for 'bout a mile; moose make great noise—I know he very sick; and soon when I come on little barren I see um standing on other side. Oh my sakes! He got sich a bad cough! He not able to hold up his head. Then I shoot and he run little piece further and drop. You want to know where you hit um? Well, I tell you. You hit um in the neck—make um cough shocking."

THE SAMBUR.

Few members of the deer family are more wary, or more difficult to approach, than this stately inhabitant of the Indian jungle. It is considerably larger than the common red deer peculiar to Scotland. and is usually of a dark slate colour, mingled with grey, nearly black about the face and points, and a light buff between the haunches and underneath. The eyes are full and prominent, the tail long, and the hair about the jaws longer than any other part of the neck. When the animal is alarmed by the hunters' approach, or excited by combat with a member of his own species, this hirsute fringe bristles up and forms a curious sort of ruff. Sambur fighting sambur-a habit they are much addicted to at the time of year when the animals are mating, -each stands fairly on his hind-legs and spars with his fore-feet, parrying and fencing till either sees an opening, and then lets drive fiercely with his antlers. What with his bristling collar, and flashing eyes, and upreared posture, it is hard to believe that he and the gentle hind, meekly browsing a little distance off, can claim relationship. So it is, however, and what is more, for all her passive mien, she has a considerable interest in the issue of the fray, inasmuch as the victor is to be her mate; and as soon as the strife is concluded, he and she will trot off together. This mode of settling a love affair is, however, not peculiar to the rival admirers of a lady sambur. As has already been observed, her majesty the lioness is in the habit of conferring her paw on the leonine prince who can vanquish all comers.

The horns of the sambur are rather upright, having two short brow antlers only, and at three years old two points at the extremities of each beam. The horns vary in size according to the age of the animal, and are cast annually; not, however, at the same time, for one generally drops a day or so after the other; the new horns attain their full growth in about three months, appearing about a week after the old ones are shed, and are covered with a thick, leaden-coloured skin called the velvet, which after a time begins to fall off. At this period the horns are very sensitive, and the stags avoid bringing them into collision with any substance.

The hind does not take to herself a mate till she is three years old. Giving birth to a fawn in the most secluded spot she can find, she makes it lie down by pressing her nose and forehead against it; and there it will lie, even though its dam should be absent the whole day. She seldom, however, ventures out of earshot of its bleat or distress, and should a fox or jackal be found molesting her helpler little one, her cries will gather all the samburs in the neighbourhood, and the would-be kidnapper is glad to sneak away from the bristling ruffs and threatening horns.

Speaking of the sambur, an experienced hunter says, "He takes alarm from every living thing in the forest; the slightest sound, be it only the fall of a leaf, or the scratching of a jungle-fowl, will scare and set him off in a moment. Except in certain embarrassed situations, they always run up wind, their great security lying in their extreme keenness of scent, for they can smell a taint in the air at an almost incredible distance. When a hart is disabled or run down by dogs, and he feels that he cannot escape by speed, he will choose the best position he can, and defend himself to the last extremity with his antlers. Powerful dogs may pull down a full-grown stag when running and breathless, but not a *cold hart* (one that has not been wounded) when he stands at bay, for he takes such a sweep with his antlers that he could exterminate a whole pack, should they attack in front only."

It might be fairly supposed that the fleet and wary sambur, as well as others of the deer and antelope family, has no other enemy to dread save beasts of prey and civilized sportsmen; that it could well afford to kick up its free heels derisively in the face of the native hunter, owning neither the far-reaching rifle nor the swift hound. Not so. The divine ordinance that gave man dominion over the beast of the field, is many centuries older than the invention of gunpowder, and depended not for its consummation on the chance discoveries of a remote period. Reason is the potent weapon. Armed with it, the naked savage defeats the mighty hippopotamus, and fashions him trinkets of its terrible teeth, and sandals of its impenetrable hide. Endowed with it, he casts the roaring lion helpless into the pit. and dooms the savage tiger to secret and sudden death. Thus, the fleet sambur, so wary that "the fall of a leaf will scare him off," and in a moment send him bounding beyond the reach of a bullet, yields to the Indian, armed only with a cord, a stone, and a thorn.

This is the way the three simple implements are formed into the most terrible of traps. # The Mulchers of the jungle cut strong

THE SAMETR

pieces of the creeping bamboo, about a quarter of an inch in diameter and four inches in length, leaving the curved, sharp-pointed, stout thorns that grow out of the joint. In the other end of this is a notch, in which is fastened a piece of strong fibre made from the aloe. about eighteen inches in length, and to this is attached a small round pebble by a hole drilled through the centre. In some parts of the jungle is found a small sweet-tasted gourd, somewhat shaped like a cucumber, and of this both spotted deer and antelope are particularly fond. The natives being aware of this fact, bait a number of these hooks with this fruit and throw them in the runs. The deer unsuspiciously begin to eat them, and finding the string and pebble knock about, they bend down their heads and attempt to break it off by treading on it with their fore-feet or striking at it with the In either case the chances are that the cord gets between the hind. divisions in the hoof, and being arrested by the stone, they are irretrievably caught, as the hook fastens in the mouth or throat, and the more they struggle the firmer they are held. They generally struggle so violently, that death from exhaustion follows in a very short time."

The following adventure, experienced by the indefatigable and, in this volume, often quoted "Old Shekarry," will well serve to illustrate the European mode of hunting the sambur. Accompanied by a friend and "a curious nondescript dog-a cross between an English foxhound and a Bringarry greyhound-which had its ears and tail cropped close to the roots to enable it to get through the jungle," the game was tracked to a steep ravine, at the bottom of which wound a mountain torrent, sometimes creeping silently among mossy stones, and at others dashing down over huge boulders of granite. Here they found that the sambur had turned off abruptly in order to find shallower and easier fordage for their weak-limbed fawns. On they went, sometimes on their hands and knees, creeping through dense underwood, and at others climbing rocks or wading water-courses, until they came to a place where the stream was shallow, and where it was evident the deer had crossed very lately, as water was still flowing into the deep imprints made by their feet in the soft sands near the banks. The stream was here crossed, and after another quarter of an hour of gliding and creeping, a sharp noise, like the barking of a dog, was heard from a dense thicket a little distance ahead.

"Walter pulled up at once, and I noticed Ponto, his canine friend, had also caught up the sound, for he had his head knowingly cocked on one side, as if he were listening carefully, and his nose elevated, as if trying to sniff the air; whilst a small stump—an apology for a tail —made sundry eccentric movements, indicating that something was in the wind. After a moment's pause Walter touched my shoulder, and whispered below his breath, 'That was the bark of a buck elk, so cock your rifle and step in front, for I want you to kill him.' I stole noiselessly along the run, following the slots which were distinctly visible, until I came to a more open spot, where the jungle had been burnt the preceding year, and crouching behind a thick bush, I had the extreme satisfaction of seeing the herd, consisting of three harts and fourteen or fifteen hinds, some of which had fawns, quietly cropping the herbage, about two hundred yards' distance.

"'They are too far off to make certain,' said Walter; 'try and crawl under cover of the bushes to that thick clump. If you go carefully you won't be discovered, as the wind blows strong from them to us.' I did as he desired, and we were now about a hundred and twenty yards distant from the herd, which, still unaware of our presence, continued browsing on the young shoots and tender woods. This was the anxious moment; the game was now before us, and everything depended on a steady hand. 'Take the nearest, Hal,' whispered Walter, 'and leave the further one to me: file when I whistle.' I covered the shoulder of a stately stag with towering antlers, and a large black ruff round his neck, and, on the signal being given, let drive. He made a bound, staggered, and then fell forward and was instantly dead."

Walter, who had a very much longer shot, sent a bullet into the hind quarters of his buck, and brought him to the ground, and as the herd rushed by another splendid fellow was wounded, but not brought down; so after opening and bleeding the two that had been made to bite the dust, the hunters reloaded and set about spooring the wounded sambur. The size of its "slots" betokened it a full-grown buck, and the bright crimson stains and spots that marked the track of the anfortunate beast, showed that it was badly hurt. "We followed at our best pace, and after a sharp run had the gratification of hearing Ponto's deep tongue echoing among the rocks. We tore down the slope of the hill leading to the river, and there was the sambur

THE SAMBUR.

standing in the torrent, every now and then menacing Ponto with h_{is} antlers, who was swimming in the stream, and had enough to do to evade his frantic rushes.

"I was quite out of breath and powerless with the run; but Walter, standing up at once firm and collected, took a deliberate aim with his unerring rifle, and the stag, taking a mighty spring, plunged into the stream, and, shot through the brain, rose a lifeless thing. The current, which was extremely rapid, bore the carcase down for some distance, dashing it amongst the rocks and whirling it in the eddies, and we had considerable difficulty in getting down to drag it out, as the rayine was very steep, and full of precipices and huge rocks. At last, however," we managed to haul him high and dry on the bank."





THE ELAND.

THIS noble antelope, the largest of his tribe, is met with in most parts of Africa, but more especially on the borders of the Great Kalahari desert. The full-grown male measures six feet high at the shoulder, and is about twelve feet in length. Its horns are about two feet long, with a ridge ascending in a spiral direction about halfway, up, the spiral making two perfect turns when the male is full grown. Its tail is between two and three feet long, and it has a dewlap hanging to its knees. Its general colour is ashen-grey, and in bulk it equals an adult Hereford ox; indeed, a troop of eland bulls in full condition is likened by an experienced African hunter to "a herd of stall-feed oxen." The eland cow has no dewlap, she is altogether more graceful and slenderly built than her mate, and her horns are slighter, and without the ridge.

Despite the rapid strides which civilization has made among us, there is one of our institutions that a Bechuana, wild from the verge of the Great Kalahari, can afford to laugh to scorn—our roast beef. Eland flesh, so say travellers all, is more delicious than that of any other animal running on four legs; and no traveller, whose experience has extended beyond the quadrupedal, ever ventured to dispute the eland's supremacy. The animal is fit for dressing the moment it is killed; its lean is sweet-scented, tender, and mellow, and its fat delicious. Moreover, in such splendid condition is the eland generally found, that the Bechuana could, if they pleased, hold a "cattle show," compared with which our Baker Street Bazaar would seem a mere skin market. "At the end of a severe chase," writes Mr. Gordon Cumming, "I have repeatedly seen an eland drop down dead, owing to his plethoric habit."

It roams the desert plains in troops of from ten to a hundred strong, and is, "like the gemsbok, independent of water." The eland has less speed than any other variety of antelope, and falls an easy prev to the stealthy savage "stalker," with his assagai or poisoned arrows. On account of this lack of speed, the eland suffers much more than any other antelope from the attacks of that terrible fellow the "wilde honden" as he is called by the Boers, in other words, the gaunt, mangy, ever-hungering wild dog. This animal would seem to be a connecting link between the wolf and the hyæna, combining the stealth and cunning of the latter, with the blood-thirstiness, the untiring long-strided and leisurely gallop, and the disposition to at in concert evinced by the former. The females bring forth their whelps in holes and underground burrows. They have three different cries, each being used on special occasions. "One of these cries is a sharp angry bark, usually uttered when they behold an object they cannot exactly make out; another resembles a number of monkeys chattering together, or men conversing, while their teeth are clashing with cold. This cry is emitted at night, when large numbers of them are together, and they are excited by any particular occurrence, such as hearing the voice of the domestic dog. The third cry, and that most commonly used among them, is a sort of rallying note to bring the various members of the pack together." They hunt in packs, fifty or sixty strong, the leading hounds when fatigued falling to the rear, when others, who have been "saving their wind," take their place, and the entire troop inspired anew, utter their appalling yell and lengthen their strides. Let the object of pursuit be what it may, eland, or gnoo, or gemsbok, he will surely succumb to the dogged perseverance of the "wilde honden," and being once brought to bay the business is soon settled. Now you have the panting and bedraggled eland, helplessly contending against the death that awaits him in each of the fifty pair of bloody jaws by which he is encircled, and within ten minutes not a trace of eland is in sight, not a scrap of flesh, nor a strip of skin, not a smear of blood upon the ground even-nothing but a reclining posse of blinking, weary, potbellied "wilde honden." Should the huntsman approach a horde of wild dogs, nothing of the fear displayed under such circumstances by other carnivorous animals is apparent. They will merely emerge from their holes or rise from the ground on which they are reclining.

vawn, shake themselves, and slowly move off, stopping at every few steps to look back, as though not quite sure that the intruder is an enemy, and inclined to come to an explanation with him. But against the hunter's dogs they bear the deadliest animosity, seeming to regard them as renegades and voluntary slaves, descrving the hatred of every free cur in the country. Singly, however, the "wilde honden" would be no match against the domestic hound; and with this fact the former seems well acquainted, and to specially bear in mind. Should the hunter, or the Boer, whose defenceless sheep-flock has been ravaged by the murderous pack, loose his watch-dogs, and urge them to combat with the "wilde hondens," these latter will not budge an inch, lest in the flight one of their weak members, falling in the rear, might be surrounded and come to grief. Steadily they keep their ground, and when the avenging farm dogs approach, open on either side to admit them, and then as suddenly closing up again, tear them limb from limb, cat up every scrap of their carcases, and then trot off triumphant.

The speed of the eland is only slow as compared with that of antelopes generally—seventeen miles an hour can scarcely be called a jog-trot pace, and that is the rate, we are assured by Captain Drayson, at which the eland rushes down the steepest hills, pausing not should it encounter rocks and boulders impossible to the eleverest steeplechaser, but clearing them with case, and without in the least diminishing its speed. "No idea can be formed," says Drayson, "of the activity of the eland from the appearance of the specimens exhibited in the Regent's Park Zoological Gardens. Give them a good run, and they would nearly leap over the palings that there surroun, them."

Captain Drayson, who spent a considerable time in Kaffirland, hunting everything worth hunting, furnishes the following graphic instance of eland chase. Being out with a jolly company of Boers, he had the misfortune to be thrown from his horse; but with no worse result than a few bruises, and the breakage of the stock of his gun. This, however, was bad enough, as it involved the necessity either of retracing many miles back to the camp to procure a fresh piece, or of accompanying the hunting party for the cold satisfaction of seeing them bring down the game. Of the two evils, the former seemed the feast, and so back to camp galloped the

captain. Too much ground, however, had been lost to admit of a chance of his overtaking his party, so, alone in the wilderness, he resolved to essay a little eland hunting on his own account. "After diligent search, I suddenly noticed some animals, nearly a mile distant. that looked extremely like elands, therefore I turned in their direction, which was nearly opposite to that which I had first pursued. As I approached them, I made out a couple of buli and four cow elands, with five or six half-grown calves. They went away as soon as they noticed me, and crossed a little muddy hollow that seemed soft enough to hold them fast; they got over, however, but sunk to their bellies in the attempt, and came out on the other side with black mud-stockings. I knew that their instinct had shown them the best place for a crossing, and that if I tried at any other I might get pounded completely; I therefore went down to the spot and tried my horse at it. He would not stir a step into the bog. but smelt at it in a suspicious manner: spurs and whip had no effect on him, he would not face it.

"I saw that the quiet plan was no good with my nervous brute, so turning round, I gave him a little canter and brought him down again to the muddy crossing with a rush. When he found what I purposed, he tried to refuse; but I let drop both spurs into his flank with a vigorous dig, and at the same time applied the *jambok* behind with such good effect, that he floundered into the bog, sinking to the girths. He struggled desperately, and could scarcely move. There were little round hard tufts of grass in places that afforded him a slight footing. I therefore dismounted, and by shouting and lifting with the bridle, managed to get him across the score of yards, the breadth of this horrid place. This struggle took a good deal out of him, and he was none of the freshest when I remounted and followed the elands, which I saw steadily trotting along a mile in advance.

"I at length closed with them, and turned a bull from the herd. I rode behind, and obliged him to keep at a gallop, as this pace was more distressing to him than the trot. Seeing another muddy place a short distance in front I pulled up, and as the bull was floundering through it, I gave him the contents of both barrels in the stern. He did not fall, although I could see that he was very badly wounded. I managed to get over this difficulty with greater ease than the first, as the mud was not so⁶ deep, and commenced loading as I rode. Upon taking out my bullets, I discovered that they were for my broken-stocked gun, the bore of which was nearly two sizes larger than the one I now had with me; and this difference I had forgotten in my hurry of changing. I put the bullet in my mouth, and kept biting it to reduce its size, and at last managed just to put it into the barrel. With the aid of a flint on the ramrod I hammered the bullet about half-way down, but farther it seemed determined not to go.

"The eland had trotted down to some water that flowed from a rocky prvine near, and formed a sort of court or semicircle, the back of which was high, and like a stone wall. He stood in the water, and as I approached could not retreat, as he was in a sort of *cul de ac*, and did not like coming past me. I felt inclined to go in at the bull with my clasp-knife, but a threatening kind of pawing, and a shake of the head when I came near, made me think it more prudent to keep off.

"I now remembered a Dutchman's plan for a 'sticks bullet' as they call it; viz., dropping a little water in the barrel, I soon found the good result, for the ball began to move, and at each blow from the ramrod went lower and lower, until the clear ring and springing of the ramrod showed it to be home, I then laid my impatient prisoner low with a shot behind the shoulder; he was a fine young bull, about fifteen hands in height."



COW ELAND.



THE SABLE ANTELOPE.

THIS, the most rare of the antelopes, has within the last few weeks been added to the treasures already possessed by the Royal-Zoological Society of London. Beyond the stuffed skin of one of them some years ago deposited in the British Museum, its appearance was before unknown in Europe.

The specimen here depicted is from Port Natal, and is so young that its horns are not fully developed, nor has its coat attained the singular appearance that distinguishes the adult animal. From between the horns of the full grown antelope there rises a bushy black mane which extends to the middle of the back; the greater portion of the coat is of a glossy jet-black hue, forming a most vivid and remarkable contrast with the snowy whiteness of the lower parts; the tail is tasseled and fringed, resembling that of no other known antelope; and the horns, upwards of three feet in length, are perfectly flat, sweeping gracefully over the back in the form of a crescent.

The existence of this species of antelope was first discovered by Sir Cornwallis Harris in 1836, who, while pursuing an elephant he had wounded, unexpectedly came upon a small herd of nine does and two bucks near the Cashan range. Convinced that the animals before him were unknown to science, he determined upon obtaining a specimen, and after a toilsome pursuit of three days succeeded in killingone of the bucks, which was eventually placed in the collection of the British Museum. He thus describes its appearance :--- "Nearly equal in stature to the equina, it appeared, in point of general contour, to be more closely allied to that splendid species than to any other with which we are yet acquainted. During my first interview I had ample opportunity of remarking that the females, like their lords, were all provided with scimitar-shaped horns; and, although somewhat smaller in stature, that they were similarly marked-a deep chestnut-brown verging on black taking the place of the intense sable Judging from the compact form of the hoof, the habitat of and tan. the species should be limited to hilly districts; and it seems probable, from many circumstances, that the herd from which my specimen was obtained had wandered to the spot in which we found it from mountains lying to the northward and eastward, which may, perhaps, form their head-quarters. Be this as it may, by none of the natives within our reach was the animal recognised, although some, to conceal their ignorance, pronounced it to be kookaama, which, in the Sichuana dialect, signifies the oryx, or true gemsbok, an animal of such extremely raroccurrence within Moselekatse's country that they had, in all probability, never even seen one."



THE KANGAROO.

ITS STRUCTURE.

"The young of the kangaroo are born in an embryotic state, and are conveyed to a comfortable *marsupium* or pouch, belonging to the mother, where there are teats to which they attach themselves by their mouths. Here they stick like little animated lumps till the small knobs, that exist at the places where the members ought to be, bud and shoot out into limbs; by and by these limbs become more and more perfect, and the extremities are completely formed, till gradually the development of the creature reaches its proper proportions, and it is able to go alone. It is right pleasant to behold these curious little animals hopping or running about their parents, and on the most distant approach of danger flying for refuge to the pouches of their mother, where they disappear till it is past; and from whence, if they think they may safely venture, they peep out to see whether the coast is clear."

Such is the account given of the kangaroo by Scaglier, and despite the romantic and "dragonish" air that seems to pervade it, it is simply and strictly true. Professor Owen, anxious to settle the perplexing question, obtained a female kangaroo, mated it, and watched it narrowly that he might exactly determine how long a time would elapse before the progeny came into the world. On the thirtyninth morning, on looking into the animal's pouch, there was a tiny thing resembling an earth-worm in the colour and semi-transparency of its integument, adhering firmly to the point of the mother's nipple, breathing strongly but slowly, and moving its fore legs when disturbed. Its little body was bent upon the abdomen, its short tail tucked in between its hind legs, which were one-third *shorter* than the fore legs, and its entire length, from the nose to the tip of the tail, did not exceed one ingh and two lines.

• Although this mite has power enough to grasp the nipple, it is utterly incapable of its own unaided efforts to draw sustenance therefrom. He, however, who has decreed that an animal should come so imperfectly into the world, has made ample provision for its maintenance during its extreme infancy. The parent animal has the power to inject milk into the mouth of its helpless suckling, and as it is impossible (according to our acceptation of the word) that the young one's efforts at suction should invariably coincide with the act of injection performed by the mother, the air passages of the foetus are so beautifully constructed, that it can imbibe and breathe at one and the same time with the most perfect freedom. "Thus," says Professor Owen, "aided and protected by modifications of structure, both in the system of the mother and in its own, designed with special reference to each other's peculiar condition, and affording therefore the most irrefragable evidence of creature foresight, the feeble offspring continues to increase from sustenance exclusively derived from the mother for a period of about eight months. The young kangaroo may then be seen frequently to protrude its head from the mouth of the pouch, and to crop the grass at the same time that the mother is browsing. Having thus acquired additional strength, it quits the pouch and hops at first with a feeble and vacillating gait; but continues to return to the pouch for occasional shelter and supplies of food till it has attained the weight of ten pounds. After this it will occasionally insert its head for the purpose of sucking, notwithstanding another foctus may have been deposited in the pouch; the latter attaching itself to a different nipple from the one which had previously been in use."



from the Latin *marsupium*, a bag or purse) are of the lowest grade in the scale of intelligence. They appear to have just as much intelligence as

is requisite to the performance of the merest animal functions, and no more. They have never been known to recognise an individual who has fed and tended them for years from the most complete stranger, or to exhibit an appreciation of any sort of caress you may please to bestow on them. Their vocal powers are extremely limited; a sort of hollow bark, or growl, being the nearest approach to a perfectly developed sound, made by them; indeed, the larynx of the kangaroc lacks the necessary apparatus for producing a vocalized sound, to which the noise that the animal emits bears no resemblance.

The kangaroo is an inhabitant of New Holland and Van Diemen's Land, and, singular as is its formation, it would be impossible to conjecture another better adapted to the country. Australia is proverbially a thirsty region, and during a considerable portion of the year the supply of water is very precarious. True, as a rule, marsupial animals drink but little, but that little is indispensable. With her progeny comfortably tucked in her pouch, the kangaroo can within an hour quench her thirst, even though the next pool should lie ten miles distant; whereas, if she had to convey her little ones by means of her mouth, as do members of the canine and feline family, the task would soon exhaust her strength, and there would be nothing left her but to abandon her young or lie down and die beside them.

• The flesh of the kangaroo is by no means unpalatable, and is especially relished by the Bushman. Its only fault is that it is too lean; its tail, however, is said to make excellent soup. A native recipe for a dish of kangaroo is as follows: "Skewer slices of lean, and what bits of fat you can collect, on your ramrod, roast at a fire that any native will make with two sticks, or that you can make for yourself with a flash of gunpowder, and if you happen to be hungry, you will not require knife or fork, salt, pepper, or pressing." "Kangaroo steamer" is another dish, a sort of haggis of venison and salt pork, very popular with those who have time and patience for the culinary operation known as simmering.

HOW IT IS HUNTED.

KANGAROO hunting is a very favourite pastime with both colonists and natives, and is accomplished by the native by flinging his unerring "boomerang," or else a body of men will stalk a kangaroo family until it is fairly surrounded, and then suddenly burst upon it with their clubs and spears. The colonists, however, confer dignity on the sport, and set out for a kangaroo hunt on horseback, and accompanied by trained dogs in regular fox-hupting fashion. Nor is there wanting in the chase the glorious chance of getting badly hurt, which, after all, is the true salt of all hunting games; and after all you may come empty away. Take the following as a fair sample of kangaroo hunting :---

"In a long day's ride we only found one kangaroo, fortunately a good specimen of that kind known as a 'red-flyer,' a strong and fleet animal, not less than five feet high. The bush was tolerably open, hampered only by fallen timber, and occasionally rocky or boggy bits. The find was very fine. The kangaroo, which was feeding in a patch of long grass, jumped up under our horses' feet, and at first going off, looked very much like a red deer hind. Its action was less smooth, though equally swift; but no one could have guessed that it consisted only of a series of jumps, the fore feet never touching the ground. A shrill tally-ho from one of the finest riders I ever saw, made all the dogs spring into the air. Two of them got away on pretty good terms with our quarry, and while facing the hill, at a pace considerably greater than an ordinary hunting gallop, I thought we should have had a 'whoo-whoop' in less than five minutes. After crossing a ridge and commencing a descent on the opposite side, however, the red-flyer showed us 'quite another pair of shoes,' and a pretty fast pair too. I never saw a stag in view go at all like our twolegged friend, and in short, after a sharp burst of twelve or fourteen minutes, both dogs and men were fairly distanced. . . . I think I can perceive why the animal always, if possible, takes a down-hill course when pursued. The hare, which, like the kangaroo, has very long kind legs, prefers running up hill, but she makes good use else of her fore legs. At full speed, as I have said, the kangaroo's fore feet never touch the ground; and therefore in going down-hill he has more time to gather up his hind limbs to repeat his tremendous spring than he could have in facing an ascent."

Wild and innocent, however, as the kangaroo looks, to bring him to bay is only half-way towards conquering him. He may take to a water-hole, and standing therein and seizing the dogs as they approach him, thrust them under water, holding this one at the bottom with his hinder feet, and this by the nape of the neck with his hand-like forepaws, till death by drowning thins the pack very considerably. Should the hunter bring the kangaroo to bay on land, the animal will fight desperately for his life. Each of his hind legs is furnished with a claw as formidable as a boar's tusk, and woe betide the dog that comes within range of a lunge of either of them; or, worse still, if the kangaroo should catch his assailant in his fore-arms, there he will hold him till he is flayed from chest to tail. Even man may not attack the kangaroo with impunity, as the following incident, extracted from the Sporting Review, will show. The narrator had commenced the attack with his dogs, one of which had been seized and treated in the unceremonious fashion above noticed.

"Exasperated by the irreparable loss of my poor dog, I hastened to its reverage, nothing doubting that with one fell sweep of my formidable club my enemy would be prostrate at my feet. Alas ! decay and the still more remorseless white ants frustrated my murderous intentions, and all but left me a victim to my strange and active foe. No sconer had the heavy blow I aimed descended on his head, than my weapon shivered into a thousand pieces (the heart of it had been eaten out by the white ants—a customary practice with these interesting insects), and I found myself in the giant embrace of my antagonist, who was hugging me with rather too warm a demonstration of friendship, and "ripping at me in a way by no means pleasant. My only remaining dog, too, now thoroughly exhausted by wounds and loss of blood, and apparently quite satisfied of her master's superiority, remained a mute and motionless spectator of the new and unequal contest.

"Notwithstanding my utmost efforts to release myself from the grasp of the brute, they were unavailing, and I found my strength gradually diminishing; while, at the same time, my sight was obscured by the blood which now flowed freely from a deep wound, extending from the back part of my head over the whole length of my face. I was, in fact, becoming an easy prey to the kangaroo, who continued to insert with renewed vigour his talons into my breast, luckily, however, protected by a loose, coarse canvas frock, which in colonial phrase is called a 'jumper,' and but for which I must inevitably have shared the fate of poor Trip. As it was, I had almost given myself up for lost; my head was pressed with surpassing strength beneath my adversary's breast, and a faintness was gradually stealing over me, when I heard a long and heart-stirring shout. Was I to be saved? The thought gave me new life; with increased power I grappled and succeeded in casting from me my determined foe, and seeing a tree close at hand, I made a desperate leap to procure its shelter and protection. I reached and chung to it for support; when I heard the sharp report of a rifle, and the bark about three inches above my head was penetrated with a ball. Another shot followed with a more sure aim, and the exasperated animal-now once more within reach of me-rolled heavily on its side. On the parties nearing, I found them to be my brother and a friend, who had at first mistaken me for the kangaroo, and had very nearly consummated what had been so strangely begun. You may imagine that the little beauty I ever

possessed is not much improved by the wound on my face, which still remains and ever will. I am now an older hand at kangaroo, hunting, and never venture to attack so formidable an antagonist with an anteaten club; my days also have grown too wary to rush heedlessly within reach of his deadly rips. We have killed many since, but rarely so fine a one as that which first tried our mettle on the plains of New Holland."



LANGAROO SPOOR



SKELETON OF THE GIRAFFE.

THE GIRAFFE.

ITS STRUCTURE.

TILL within the last century, the very existence of this magnificent animal was doubted by Europeans—at least, it was no more believed in than the unicorn. Who can wonder at the incredibility of the people? I have seen an animal, said the traveller, with the skin of a leopard, the head of a deer, a neck graceful as the swan's; so tall, that three tall men standing on each other's shoulders, the topmost one could scarcely reach its forehead; and so timid and gentle, that the flerest puppy by its bark could compel the enormous creature to its utmost speed, which excels that of the hare or greyhound !

This was all the traveller knew of the giraffe, and he told it, and when folks heard or read, they winked, wagged their heads, as do knowing people while exercising their leading faculty, and flatly refused to be "gulled" by any such "traveller's tale." Suppose, however, the traveller had known as much about the giraffe as we know, and related it? Suppose, in addition to the particulars respecting the animal's shape and size, the traveller had told our
great grandfathers that the tongue of the giraffe was such a wonderful instrument that, protruded a foot from the mouth, it was used as a grasper, a feeler, and an organ of taste; that the giraffe's tongue was what in many respects the elephant's proboscis is to that ponderous animal ? That the giraffe's nostrils, oblique and narrow. were defended even to their margins by a chevaux de frise of strong hairs, and surrounded by muscular fibres, by which they can be hermetically sealed, effectually preventing the entrance of the fine sand which the suffocating storms of the desert raise in such clouds, that man, with all the appliances suggested by his invention must fiee from or die ? That the giraffe's beautiful eyes, lustrous and prominent, were so situated that he could, without moving his head, sweep the whole circle of the horizon, on all sides, behind, before, every way, so that for any enemy to approach unawares was impossible? I much question, if the traveller had related these wonders to our great grandfather,---who was a stout-headed man and not to be trifled with,---whether he would not have found himself behind a bedlam-grating in a very short time.

Besides these mentioned, the giraffe possesses other features equally peculiar. The first impression one receives on viewing the animal is, that its fore legs are considerably longer than its hinder ones. This, however, is illusory. The walk of the giraffe is not majestic, the neck stretched in a line with its back giving it an awkward appearance. When, however, the animal commences to run, all symptoms of awkwardness vanish, though its progression is somewhat peculiar. The hind legs are lifted alternately with the fore, and are carried outside of and far beyond them; while the long black tail, tufted at the end like a buffalo's, is curled above the back, and moves pen dulum fashion exactly as the neck moves, giving the creature the appearance of a curious and nicely adjusted piece of machinery. They congregate in herds of from twelve to twenty, though at times as many as thirty and even forty have been seen in one company. These herds are supposed to be distinct families, and embrace young fawns of from six to nine feet in height, full-grown bucks, eighteen feet from fore-hoof to forehead (mark this height on a wall, and look up at it !); and females, the tallest of whom is three feet shorter than her lord while her limbs are even more lithe and delicate than his.

HABITAT OF THE GIRAFFE.

MORE than twenty years ago, four giraffes were snared in the wil³s of Abyssinia, and the animal regarded as fabulous, became a common-place sixpenny show. A dog is a

dog, and a graffe a gnaffe; very different, however, from the captive animal of our Zoological Gardens, wearily traversing the limits of its inclosure, humbly arching its proud neck as if in acknowledgment of the admiration it excites, and looking down on its admirers with its great sad eyes, very different in appearance must be the noble creature, roaming with its fellows through the endless forests of cameeldorn trees and acacias, whose tall green crowns are cropped by the mighty giraffe, as the ox crops grass off the earth, or reclining or disporting with ease and grace peculiar to liberty, among the dense and full-blossomed mimosa groves.

It might be supposed, that animals of such tremendous bulktheir heads in some cases literally topping the trees-would be easily discovered by the hunter. That this is not so, however, is the testimony of every sportsman who has pursued the colossal game. Andersson says, "Even the practised eyes of my native followers would often deceive them; they would persist that they saw giraffe, pointing at objects which turned out to be nothing but decayed and bleached trunks of trees; and would not be persuaded that herds of the animal plainly seen through my glass, were anything but sticks of dead timber." And Cumming, who, considering the scores of giraffeherds he claims to have had dealings with, certainly should know the animal by sight as well as any man, says : " In the case of the giraffe, which is invariably met with among venerable forests, where annumerable blasted and weather-beaten trunks and stems occur, I have repeatedly been in doubt as to the presence of a troop of them, until I had recourse to my glass; and on referring the case to my savage attendants, I have known even their optics to fail, at one time mistaking these dilapidated trunks for camelopards, and again, confounding real camelopards with these aged veterans of the forests."

Hunters make mention of the flesh of the giraffe being highly scented with the perfume of the mokaala and other flowering shrubs on which the animal feeds; but Mr. Cumming records a fact hitherto unobserved, viz., that the living creatures emit a fragrant odour. "No pen or words can convey to a sportsman what it is to ride in the midst of a troop of gigantic giraffes. They emit a powerful perfume, which in the chase comes hot to the face, reminding one of the smell of a hive of heather honey in September."

Concerning the gentle and confiding disposition of the giraffe, Major Gordon relates a remarkable instance. Having brought down one of them with a musket-ball, the Major approached, and stroked the animal's forehead, and otherwise caressed it, when so far from exhibiting resentment or anger, the poor brute gently closed its eyes as though grateful for the caress. When, however, its throat was cut, preparatory to taking off the skin, the giraffe, while struggling in the last agonies, struck the ground convulsively with its feet with immense force, as it looked reproachfully on its assailant with its fine eyes fast glazing with the film of death.



SPOOR OF GIRAFFE.



HOW THE GIRAFFE IS HUNTED.

SIR WILLIAM HARRIS, while traversing the Baquaina country in quest of game, encountered a large herd of giraffes, and thus describes his sport with them :—"After the many mischances, how shall I describe the sensations I experienced as, on a cool November evening, after rapidly following some fresh traces in profound silence for several miles, I at length counted from the Back of my most trusty steed, no fewer than thirty-two giraffes of various sizes, industriously stretching their peacock-necks to crop the tiny leaves that fluttered above their head in a flowering mimosa grove which beautified the scenery. My heart leapt within me, and my blood coursed like quickstiver through my veins, for with a firm wooded plain before me, I knew they were mine ; but although they stood within a hundred yards of me, having previously resolved to try the boarding system, I reserved my fire.

"Notwithstanding that I had taken the field expressly to look for giraffes, and had taken four mounted Hottentots in my train, all excepting Piet had, as usual, slipped off unperesived in pursuit of a troop of koodoos. Our stealthy approach was soon opposed by an ill-tempered rhinoceros, which, with her old-fashioned looking calf. stood directly in the path, the twinkling of her bright little eyes. accompanied by a restless rolling of the body, giving earnest of her mischievous intentions. I directed Piet to salute her with a broadside, at the same time spurring my horse. At the report of the gun, and sudden clattering of hoofs, away bounded the herd in grotesque confusion, clearing the ground by a succession of frog-like leaps, and leaving me far in their rear. Twice were their towering forms concealed from view by a pack of trees, which we entered almost at the same instant; and twice on emerging from the labyrinth did I perceive them tilting over an eminence far in advance, their sloping backs reddening in the sunshine, as with giant port they topped the ridges in right gallant style. A white turban that I wore round my hunting-cap, being dragged off by a projecting bough, was instantly charged and trampled under foot by three rhinoceroses; and long afterwards, looking over my shoulder, I could perceive the ungainly brutes in the rear, fagging themselves to overtake me. In the course of five minutes, the fugitives arrived at a small river, the treacherous sands of which receiving their spider-legs, their flight was greatly retarded, and by the time they had floundered to the opposite side, and scrambled to the top of the bank, I could perceive that their race Patting the steaming neck of my good steed, I urged him was run. again to his utmost, and instantly found myself by the side of the herd. The lordly chief being readily distinguishable from the rest by his dark chestnut robe and superior stature, I applied the muzzle of my rifle behind his dappled shoulder with my right hand, and drew both triggers • but he still continued to shuffle along, and being afraid of losing him should I dismount, among the extensive mimosa groves with which the landscape was now obscured, I sat in my saddle loading and firing behind the elbow, and then placing myself across his path to obstruct his progress. Mute, dignified, and majestic, stood the unfortunate victim, occasionally stooping his elastic neck towards his persecutor, the tears trickling from the lashes of his dark humid eye, as broadside after broadside was poured into his brawny front. Presently

a convulsive shivering seized his limbs, his coat stood on end, his lofty frame began to totter, and at the seventeenth discharge of the^o deadly grooved bore, like a falling minaret he bowed his graceful head, and was presently prostrate in the dust. Never shall I forget the intoxiating excitement of that moment! At last, then, the summit of my ambition was actually attained, and the towering giraffe laid low. Tossing my turbanless cap in the air, alone in the wild wood, I hurrahed with bursting exultation, and unsaddling my steed, sank exhausted with delight beside the noble prize that I had won.

"While I leisurely contemplated the massive form before" me, seeming as though it had been cast in a mould of brass and wrapped in a hide an inch and a half in thickness, it was no longer a matter of astonishment that a bullet discharged from a distance of eighty or ninety yards should have been attended with little effect upon such amazing strength. Two hours were passed in completing a drawing, and Piet not making his appearance, I cut off the ample tail, which exceeded five feet in length, and was measureless the most estimable trophy I had ever gained."

Without doubt, the expression bestowed on the hunter by a mortally stricken giraffe must be of potent quality. Strong-hearted men, without any remark beyond the fat or lean condition of their game, tell of their victories over the tenderest of the deer tribe-including the unoffending oryx, and sambur, and the gentle eland; but when they come to giraffe hunting, at all events to giraffe slaying, then is the time for solemn and pathetic language. You might almost fancy the lips of their steel pens trembling with emotion as the inky and sorrowful facts flow from them. Why even Mr. Cumming, on whom, as a rule, sentiment or anything approaching it sits about as easily as a dove on the back of a porcupine-who (as the good reader will recollect), having smashed an elephant's shoulder, was at the pains to brew a little coffee, and lie down and sip it while he enjoyed the pretty sight-the coffee doubtless assimilating with the crushed limb in the mind of the sportsman, as does wine with walnuts in the minds of ordinary mortals-even he, the redoubtable Roualeyn, Gordon Cumming, found it hard to slaughter the gentle and beautiful giant without a pang of remorse. Speaking of his first giraffe, he says: "In a short time I brought her to a stand in the dry bed of a watercourse, where I fired at fifteen yards, aiming where

I thought the heart lay, upon which she again made off. Having loaded, I followed, and had very nearly lost her; she had turned abruptly to the left, and was far out of sight among the trees. Once more I brought her to a stand, and dismounted from my horse. There we stood together, alone in the wild wood ; I gazed in wonder at her extreme beauty, while her soft, dark eye, with its silky fringe, looked down imploringly at me, and I really felt a pang of sorrow in this moment of triumph, for the blood I was shedding. Pointing my rifle towards the skies, I sent a bullet through her neck. On receiving it, she reared high on her hind legs and fell backwards with a heavy crash, making the earth shake around her. . . . I had little time to contemplate the prize I had won. Night was fast setting in, and it was very questionable if I should succeed in regaining my wagons; so having cut off the tail of the giraffe, which was adorned with . bushy tuft of flowing black hair, I took 'one last fond look' (vide popular song) and rode hard for the spoor of the wagons, which l succeeded in reaching after dark."





SALIFION OF HORSE.

STRUCTURE OF THE HORSE.

A GLANCE at the skeleton of the horse will at once serve to convince us that the animal is formed at the same time for strength, for speed, and for ease of motion; obviously, he was formed to be an assistant to man, and to that end every other consideration has been sacrificed. Observe the marvellous structure of his foot. All the toes appear to have been solidified into one bony mass, which being encased in a single dense and horny hoof, is not only strong enough to support the weight of the quadruped, and to sustain the shock produced by its most active and vigorous leaps, but becomes abundantly efficient to carry additional burdens, or to draw heavy loads in the service of mankind.

The action of a horse's legs is so little understood, that it may be worth while to venture a brief explanation. Suppose the horse to be standing on its four legs, and that it commences to walk by putting forward its *left* hind-leg. This having been advanced and placed on the ground, the *right* fore-leg is next raised and advanced, then the *right* hind-leg, and lastly the *left* fore-leg follows, and the step is completed, and during the series, the centre of gravity of the animal passes over a corresponding space.

It is a common error, that in walking the horse moves both the legs on the same side, nor is it surprising that such a mistake should occur.



As above observed, the left hind-leg moves first, the right fore-leg second, the right hind-leg third, and the left fore-leg fourth; so that in passing a horse the two legs appear to move together on the same side -an optical delusion, arising from the continuity of the series of movements. In trotting, the horse moves his legs diagonally, there existing a momentary interval when all the legs are raised above the ground at one time. In trotting, each leg moves rather more frequently in the same period of time than in walking. The velocity, however, acquired by moving the legs in pairs, instead of consecutively, depends on the circumstance that in trotting each leg rests on the ground a chort time, and swings during a comparatively long time; whilst in walking, each leg swings during a short period, and rests during a long one. In walking, the body of the animal oscillates laterally; whereas in trotting it oscillates vertically: but in each of these kinds of movement there appears to be a slight motion of the trunk of the animal both laterally and vertically.

In galloping, the horse adopts three different methods of using its organs of locomotion. The easiest of all, and that called into action by weak and indolent riders, is the canter, or gallop of four beats. In accomplishing this, the horse allows his four legs to reach the ground in succession-the left hind-foot first, then the right hind-foot, then the left fore, and lastly the right fore-foot. Next in order is the gallop of three beats, the horse beginning to gallop on the right and left hind-leg, reaching the ground first; the right hind-leg and the left fore-leg next follow, and the right fore-leg last. When the horse is put to his highest or racing speed, he moves his legs in the same order as when trotting, viz., the left hind and right fore feet reach the ground simultaneously, then the right hind and left fore feet. In leaping, the horse raises the fore-legs from the ground, and projects the body upward and forward by the hind-legs alone; and considering that the muscles are acting at a great mechanical disadvantage, and that the beast has a weight of two or three hundred pounds bestriding him, none of the horse's actions so wonderfully demonstrate his immense strength and perfection of form.

Southall, who has given the relative proportions of the several parts of the skeleton of the celebrated racer Eclipse, together with the angles of inclinature and range of motion belonging to the legs, calculates that the horse in question when galloping at liberty, passed over twenty-five feet at each step; these strides were taken two and a half times each second, being at the rate of about four miles in six minutes and two seconds, or *forty miles* in an hour and twenty minutes.

Looking at the fore limbs of the skeleton, we see that the bladebone recedes from the prominent shoulder-joint, falling back obliquely; its upper apex uniting with the spinous processes of the anterior dorsal vertebræ to form the withers; the shoulder-bone retreats, forming an angle at the elbow-joint; the fore-arm consists of a single bone, and is followed by two rows of carpal or wrist-bone (the knees of the horse), amounting to seven in number. This is succeeded by the long "cannon-bone," with two slender splint-bones attached posteriorly to its upper part. To this succeeds the three phalangal bones-first, the upper pastern-bone; secondly, the lower pastern-bone or coronet; and thirdly, the "coffin" bone. There are beside, a pair of small sesamoid bones, beyond the fetlock joint, and a little bone called the "shuttle-bone" behind and partially between the coronet and coffinbone. With the pastern bones at the fetlock-joint the cannon-bone again makes an angle. The coffin-bone is inclosed in the hoof, which consists of thick, firm horn, having a certain degree of expansibility; and underneath, forming a sort of sole, is a part called the "frog," which is a cushion of elastic semi-cartilaginous substance covered with an arrow-headed elevation of the same horny substance as the hoof. At each step, the "frog" yields beneath the superincumbent pressure, and swelling out laterally expands the heels of the hoof.

Thus, from the angles which the bones of the limbs make with each other at the joints, the force of every shock, as the animal trots or gallops, is greatly broken; and this not only results from the obliquity of the bones in question, but particularly from the yielding spring of the pastern, its elasticity being provided for by a ligament which passes down the back of the cannon-bone and along the pastern to the coffin-bone. Nor should the utility of the curious little elastic "frog" be overlooked, contributing, as it does, largely to the animal's easy progression.

In the male, the withers are higher than in the female, and the neck thicker and more arched. The height of a horse at the shoulders is equal to his length from the chest to the buttock; so that, shorn of the head, neck and tail, the body and limbs might be drawn within the four lines of a square, the extremities of the carcase touching each line. The horse has canine teeth in both jaws; but in the mare these teeth are either wanting or very imperfectly developed. When the dentition of the horse is complete, he has forty teeth in all—twelve incisors, four canines, and twenty-four molars. When the animal is young the incisors have broad edges channelled out into a cavity, which in time becomes obliterated. The molars have a square crown sharply edged with enamel in a crescent form.

A writer thoroughly acquainted with the subject says: "The honest mouth" (that has not been tampered with by a rogue horse-dealer), "if a three-year-old horse, should be thus formed : the central incisors, or suppers, are palpably larger than the others, and have the marks on their upper surface evident and well defined. They will, however, be lower than the other teeth. The depression in the next pair of nippers will be nearly worn away, and that in the corner nippers have begun to ahow marks of wear. At three years and a half the second nippers will be pushed from their sockets, and their place gradually supplied by a new pair; and at four and a half the corner nippers will be undergoing the same process."



SPOOR OF ZEBRA

HABITAT OF THE WILD HORSE.

H.S. Illehille

A FREE-LIMBED giant from Patagonia, placed by the side of a puny, emaciated toiler in a Manchester factory, would hardly present a more striking

contrast than a modern cab-horse by the side of a shotless and ragged steed fresh from the Pampas, or the prairie wilds of America. Compare the former poor straddle-legged, round-nosed, sheep-eyed animal, with the picture of a horse, so magnificently and truthfully painted in the Book of Job: "He paweth in the valley, and rejoiceth in his strength: he goeth on to meet the armed men.. He mocketh at fear, and is not affrighted; neither turneth he back from the sword. The quiver rattleth against him, the glittering spear and the shield. He saith among the trumpets, Ha, ha; and he smelleth the battle afar off, the thunder of the captains, and the shouting." At the period the above passage was written, and centurics before the horse existed throughout the world, or at least in such parts of it capable of producing him food, as is proved by the fossil remains discovered in fresh-water deposits, in superficial gravels, in sands and clays, and ossiferous caverns, in Europe, Asia, Africa, and in North and South America. Various species, too, of the animal must have existed then as in these days. Continental Europe produces fullgrown fossil bones of the horse, but of such size that the living animal could have been no larger than the zebra; deep dug from the earth in the British Isles are horse-bones, showing their owners to have equalled in size our modern dray-horse; while India produces fossil remains of the genus Equus, exactly resembling the light-built, longlimbed Arab breed of modern times.

Although horses are discovered in various parts of the world, roving at will, and free as the birds in the air, naturalists pretty generally agree that there are no genuine wild horses in existence, and that those so known, are merely the descendants of domesticated breeds that have either made their escape from slavery, or been liberated and left to their fate in times of dearth. Writing on this subject, Mr. Bell says : "The early history of the horse is involved in much obscurity. It is indeed only in sacred writings that we have any probable trace of its original subjugation, or even a hint as to what nation the world is indebted to for so valuable a boon. Its natural history is no less doubtful; for there is every reason to believe that it has long ceased to exist in a state of nature, and that, like some other domestic animals, not a single indication remains by which we can judge of the form, the colour, or the habits by which it was characterized before it became servant to man, or how far it may have differed from present domesticated races." Against this may be set the argument of a farseeing writer (Mr. Martin), who says, "Though we admit the difficulty of tracing our domestic animals, or rather quadrupeds, to their precise source, there is not one that has not truly wild congeners of the closest affinity, unless indeed the camel, and the horse of the restricted genus Equus, are to be regarded as exceptions. This fact being incontestable, we ought, before the horse be considered an exception to the rule, to be sure that none of the wild breeds are so in the true sense of the word, instead of taking it for granted. Is it because the wild horses so nearly resemble the domestic breeds, that a reluctance

to admit their claims is entertained ? Surely we do not expect to find wild horses anything but horses; and though long domestication, climate, and the care of the breeder, may have impressed their signs on the unreclaimed race, still, in the main essentials, in those features which recommended the animal at first to man, and in those characters which distinguish the horse from the ass, the true wild horse must be identical with the domestic."

That so noble and invaluable a creature as the horse should be associated with mythological lore, and the superstitious rites and ceremonies pertaining to remote ages, is by no means surprising. Horses were anciently sacrificed to the sun in different nations, their swiftness being supposed to render them an appropriate offering to that luminary. In the religious processions of the sun-worshippers-foremost among whom stood the ancient Persians-horses were largely employed. According to Herodotus, the Scythians sacrificed horses as well as human beings to the god of war. The animal was first strangled by the priest, then flayed and cut up; the flesh being broiled on a fire made of the bones. When a Scythian king died, the body was embalmed and laid upon a bed, surrounded by spears, in a great grave. One of his wives, a groom, a cupbearer, a waiter, a messenger, and several horses, were slain and laid in the same grave, together with various vessels of precious metal. The mouth of the pit was then covered, and a high tumulus crected over it. This, however, did not terminate the funcral rites. After mourning a year, his dead majesty's faithful subjects "select such servants as they judge most useful, out of the rest of the king's household, which consists only of native Scythians, for the king is never served by men bought with money. These officers, fifty in number, they strangle, and with them fifty beautiful horses. After they have eviscerated the bodies, they fill them with straw, and sew them up. They then lay two planks of a semicircular form upon four pieces of timber (posts), placed at & convenient distance, and when they have erected a sufficient number of these frames, they set the horses upon them; first spitting them with a strong pole through the body to the neck : one semicircle supports the shoulders or chest of the horse, the other his flank, and the legs are suspended in the air. After this, they bridle the horses, and hanging the reins at full length upon posts erected for the purpose, mount one of the fifty young men they have strangled upon each horse, fixing him in his seat by spitting the

Lydy up the spine with a straight stick, which is received in a socket in the beam that spits the horse. Then they place these horsemen round the tumulus and depart." Awfully grand must have been the spectacle of these silent and ghastly sentinels guarding the dead monarch 1

So it is throughout ancient history, sacred and profane, and hundredof instances might be quoted showing the omnipresence of the animal. and how that he always shared in the adversities and triumphs, and in the occupations and amusements, of man. Colonel H. Smith states. that in the most ancient legislation of India, dating back to a period nearly coeval with Moses, the sacrifice of the horse to one of their deities was enjoined with awful solemnities, and that it was only next in importance to the immolation of a human being. It is recorded of the Emperor C. Caligula that, possessing a steed of wondrous beauty and speed, he created him a consul and a high priest, clothed him in gorgeous trappings worked with pearls, and housed him in a stable, the floor and walls of which were of polished marble. Which, by the bye, the honoured quadruped must have found decidedly cold and uncomfortable, and not for a moment to be compared with the humble but cosy stable enjoyed by the poor greengrocer's cob of modern times.

Even to the present day there exists amongst savage tribes a disposition to regard the horse with superstitious awe. Bruce relates that whilst journeying through Abyssinia, a potentate named Fasil having assembled the Galla tribe, said to the great traveller, "Now, before all these men, ask me anything you have at heart, and be it what it may, they know I cannot deny it you." The one great thing the Abyssinian, traveller desired was to be shown the source of the river Nile, and this desire he expressed to Fasil. Taking him to the door of the tent, the chief showed Bruce a splendid grey horse. "Take this horse," said he, "as a present from me; but do not mount it yourself. Drive it before you saddled and bridled as it is. You are now a Galla. A curse upon them and their children, their corn, their grass and their cattle, if ever they lift their hand against you or yours, or do not defend you to the utmost if attacked by others. No man of Maitsha will touch you when he sees that horse,"---and Fasil spoke truly. With the wondrous grey horse before him, his course was as clear and safe as the gh accompanied by ten thousand javelin men.

In no country in the world, as in Arabia, is the horse so highly. prized-the fiscal view included among others. Two hundred pounds is not an uncommon price for an Arab to give for a horse, and Burckhart mentions a case where a sheikh gave four hundred pounds for the halfshare of a renowned mare. It may be as well to mention that in Arabia it is as common a custom to cut, figuratively, a horse into shares, as it is with us as regards mines and other speculations. Indeed, a mare of high breed is seldom sold without the owner reserving some share in her. If he sells half, the buyer takes the mare, and is obliged to give to the seller the mare's next filly, or the buyer may keep the filly and return the mare. If the Arab has sold but one-third of the mare, the purchaser takes her home ; but must give the seller the fillies of two years, or else one of them and the mare. The fillies of all subsequent years belong to the buyer, as well as all the male colts produced on the first or any following year. It thus happens that most of the Arab mares are the joint property of two or three persons, or even of half a dozen, if the price of the mare be very high. Semetimes a mare is sold on the remarkable condition that all the booty obtained by the man who rides her, shall be shared between him and the seller.

That awkward dilemmas sometimes arise from this joint interest in a living creature, is illustrated by Lord Hill in his "Facts from Groeedore;" while, at the same time, it shows that the system of "limited liability" was in practice among the Asiatics before it was introduced in English commercial circles. "In an adjacent island tc this, three men were concerned in one horse; but the poor brute was rendered useless, as the unfortunate foot of the supernumerary leg remained unshod, none of them being willing to acknowledge its dependency, and accordingly it became lame. There were many intestine rows upon the subject; at length one of the 'company came to the main land and called on a magistrate for advice, stating that the animal was entirely useless now; that he had not only kept decently his proper hoof at his own expense, but had shod this fourth foot twice to boot; yet the other two proprietors resolutely refused to shoe more than their own foot."

The Arab's love for his horse has become a proverb; like many other "proverbs," however, the surface is the best part about it. If an Arab were known to ill-use his steed, he would henceforth be hold in abhorrence by his friends, not merely on the score of cruelty to animals; but because affection toward the horse was expressly inculcated by Mahomet. "Thou shalt be for a man a source of happiness and wealth," spake he; "thy back shall be a seat of honour, and thy belly of riches; every grain of barley given thee shall purchase indulgence for the sinner." So that whenever an Arab addresses his horse as "the core of his heart," or the "apple of his eye" (which expressions, shorn of the spicing peculiar to Oriental phraseology, mean about as much as the "phit, phit!" or "hi, hi!" common among English horse owners), he has an eye to the "indulgence for the sinner" as well as to his steed's satisfaction.

However, that the Arab has a peculiar passion for horse-flesh, far exceeding that which he feels for the wife of his bosom, hosts of Europeans have been witness to. Mr. Monro, in his "Summer's Ramble in Syria," says : "While on a visit to the river Jordan, one of my Arab escort, a great ruffian, was mounted on a white mare of great beauty. Her large fiery eye gleamed from the edge of an open forehead, and her exquisite little head was furnished with a pouting lip and expanded nostril. Her ribs, thighs, and shoulders were models of make, and her step was extremely stately. Having inquired her price, I offered the sum, whereupon the dragoon asked one-third more. After much debating I acceded, and he immediately stepped back in the same proportion as before. This is invariably the practice with the Arabs. It has happened to me repeatedly in hiring horses, that if the terms have been agreed upon without two days being occupied in the treaty, they imagine more might have been obtained, fly from the bargain, and demand more. I therefore discontinued my attempts to deal. The Arab said he loved his mare better than his own life; that money was of no use to him; but that when mounted upon her, he felt as rich as a pasha. Shoes and stockings he had none, and the net value of his dress and accoutrement might be calculated at something under seventeen pence sterling."

The true Arab steed is by no means a large animal—never indeed exceeding fifteen hands, and seldom more than fourteen hands, in height. He is slim, sinewy, with large and open nostrils, short square forehead, arched neck, and with so delicate a skin that the veins beneath are as apparent as the lines on the map. The kohlâna is the choicest of Arab herses, and is descended, according to the

Arabs, direct from the favourite mares of the prophets ; and if the said legend only be true, the existing kohlâni have reason to be proud of their ancestry. Mahomet-so the story runs-was once engaged in battle for three days, during which time his warriors never dismounted, nor did their mares eat or drink. At last, on the third day, they came to a river, and the prophet ordered that the animals should be unbridled and turned loose. Mad with thirst, the whole ten thousand rushed headlong to the river, and just as they were on the brink the prophet's bugle sounded their recall. Ten thousand mares heard the call, but five only obeyed it; and leaving the water untasted, returned to their standard. Then the prophet blessed these mares' and adorned their eyelids with kohl, after the manner of the women in the East, hence they were called kohlâni, which means blackened. They were ridden from that time forth by the prophet himself and his companions-Ali, Omar, Abubeka, and Hassan, and from them are descended all the noble steeds of Arabia.

A new-born Arabian horse experiences exactly the same treatment at the hands of its owner, as does a puppy dog of a valuable sort in England. It is kept in the house or tent, is fed by his master or mistress, or the children, on camel's milk—is christened, and should it stray from home knows its name, and replying with a neigh when called, comes trotting back to partake of the meal upon the board—a hunch of bread, a few dates, and a drink of water. May be the children will venture to scramble to his back, and he will allow them to ride or not just according to the sort of friends they happen to be; but his *real* work—the day when the ominous saddle is brought home —does not occur till he has completed his second year. Once broke to the saddle, it is seldom off the creature's back. Summer and winter, it spends the hours of daylight in the open air, either journeying or picketed to a tent-pin, and at night it is called into the tent, and lies down with its master and his family, neither feared nor fearing.

The feats of speed and endurance these intensely domesticated animals will perform, is wonderful. Fifty miles, without a moment's halt, is by no means an uncommon journey for an Arab horse, of the true breed, to perform; indeed, Colonel Smith relates that a Mr. Frazer rode from Shirauz to Teherann, a distance of five hundred and twenty-two miles, rested, went back in five days, remained nine days at Shirauz, and returned again to Teherann in seven days. According to the desert code of morals, horse-stealing is looked 'upon as an honourable proceeding, if the sufferer be a stranger or a man of another tribe. To rob a hostile tribe is considered a laudable achievement, and the thief is honoured by his comrades according to the skill and daring employed during the pilfer, rather than to the amount of booty acquired. One of the best stories of Arab horsestealing is as follows :---

A Bedouin, named Jabal, possessed a mare of great celebrity. Hassad Pasha, then Governor of Damascus, wished to buy the animal, and repeatedly made the owner the most liberal offers, which Jabal steadily refused. The pasha then had recourse to threats, but with no better success. At length one Gafer, a Bedouin of another tribe, presented himself to the pasha, and asked what would he give to the man who should make him master of Jabal's mare? "I will fill his horse's nosebag with gold," replied Hassad. The result of this interview having got wind, Jabal became more watchful than ever, and always secured his mare at night with an iron chain, one end of which was fastened round her hind fetlock ; whilst the other, after passing through the tent-cloth, was attached to the picket, driven into the ground under the felt that served himself and his wife for a bed. But one midnight Gafer crept into the tent, and insinuating his body between Jabal and his wife, he pressed gently now against the one and now against the other, so that the sleepers made room for him right and left, neither of them doubting that the pressure came from the other. This being done, Gafer slit the felt with a sharp knife, drew out the picket, loosed the mare, and sprang on her back. Just before starting, he caught up Jabal's lance, and poking him with the butt-end, cried out, "I am Gafer, I have stolen your noble mare, I give you notice in time." This warning was in accordance with the usual practice of the desert on such occasions. Poor Jabal, when he heard the words, rushed out of the tent and gave the alarm; then mounting his brother's mare and accompanied by some of the tribe, he pursued the robber for four The brother's mare was of the same stock as Jabal's, but was hours. not equal to her; nevertheless, she outstripped those of all the other pursuers, and was even on the point of overtaking the robber, when Jabal shouted to him, "Pinch her right ear, and give her a touch of the heel." Gafer did so, and away went the mare like lightning, speedily rendering further pursuit hopeless. The pinch on the ear.

and the touch with the heel, were the secret signs by which Jabal had been used to urge the mare to her topmost speed. Every Bedouin trains the animal he rides to obey some such signs, to which he has recourse only on urgent occasions, and which he makes a close secret, not to be divulged even to his son. Jabal's comrades were amazed and indignant at his strange conduct. "Oh, thou father of a jackass!" they cried; "thou hast helped the thief to rob thee of thy jewel." But he silenced their upbraiding by saying, "I would rather lose her than sully her reputation. Would you have me suffer it to be said among the tribes that another mare had proved fleeter than mine? I have at least this comfort left me, that I can say that she never met with her match."

On the immense plains that stretch far away on either side of the River Don are found great troops of horses, descendants of those animals employed at the siege of Azof in 1699, and, when they had eaten up the stocks of provender, and there was no more to be had, turned adrift to shift for themselves. One might suppose that animals, descended of a race who for centuries had depended on man for housing, and corn, when suddenly driven into the bleak desert would be altogether unequal to self-support, and rapidly dwindle and die out; but Nature, from whom they had been so long estranged, took to them kindly; jaded old troop-horses, and beasts of draught, their backs saddle-galled, and their sides rubbed bald by the familiar harness, rejoiced at their liberty, and by the time their iron shoes—the last remaining token of slavery—were worn from their hoofs, he must have been a bold man who attempted to mount them, or to back them into the shafts of a waggon.

The Cossacks, who hunt these creatures in the winter time, prizing them highly for their mettle and swiftness, distinguish them from the really wild horse. The latter they call "tarpan" and the former "muzin." The tarpans congregate in herds—a thousand strong, subdivided into smaller gangs, each of which is headed by a stallion. When about to change their grazing-ground, they proceed in the greatest order, each stallion heading his proper line and keeping it in order. Young and handsome male horses are sometimes in much the same distressing predicament as the "rogue" elephant of Africa, shunned by or shunning their fellows, and grazing all alone. As, according to reliable authority, these solitary ones are invariably the most handsome, it is probable that the jealous old fellows of the herd, afraid of being jilted by their shes, keep them at a safe distance. Frequent battles take place between wild horses and wolves; except, however, the latter can muster an immense pack, they seldom attack a herd, and even then it is by no means certain that the wolves will come off victorious.

The great horse-fields of the world, however, are the North and South American prairies. Thousands of herds, each consisting of tens of thousands, occupy the plains of both continents, from Patagonia to



HORSE-HUNTING IN THE WILDIRNISS.

the south-western prairies of North America. They are chiefly hunted for their hides, and so cheaply are the animals held that threepence each is, or was, considered a fair price for them. "I have still in my possession," writes Mr. Robinson, "a contract which I made in Goya with an estouciero for *twenty thousand* wild horses, to be taken on his estate, at the price of *threepence* for each horse or mare!"

If, however, it was left entirely to the hand of man to thin and keep down these horse-swarms they would become a plague, and both continents would scarce afford them ambling room; where, however, one horse falls by the lasso of the Indian or the Guachos, a hundred, die the horrid death of thirst; at those periods when drought sweeps the land and laps up the pools, leaving nothing but hollows of stagnant mire, then the horses, tortured to madness, rush into the first marsh they can find, trampling each other to death. Between the years 1827 and 1830 occurred the greatest drought that can be remembered. Brooks were dried up, and the whole country was converted into one vast plain of dust. To own a living well in Buenos Ayres at that time, was to own the most precious thing in the world. "I was informed by an eye-witness," says Mr. Darwin, ^{is} that the cattle, in thousands, rushed into the Parana, and being exhausted by hunger, were unable to crawl up the muddy banks, and so were drowned."

The mad career of a troop of wild horses impelled by thirst, fire, or some other cause of panic, is called a "stampedo." While in North America Mr. Murray witnessed one, and thus describes it: "About an hour after the usual time for securing the horses for the night, an indistinct sound arose like the muttering of distant thunder ; as it approached it became mixed with the howling of all the dogs in the encampment, and with the shouts and yells of the Indians; in coming nearcr, it rose high above all these accompaniments, and resembled the lashing of a heavy surge upon the beach. On and on it rolled towards us, and partly from my own hearing, partly from the hurried words and actions of the tenants of our lodge, I gathered it must be the fierce and uncontrollable gallop of thousands of panic-stricken horses. Λs this living torrent drew near, I sprang to the front of the tent, seized my favourite riding mare, and, in addition to the hobbles which confined her, twisted the long lariett round her fore-legs; then led her immediately in front of the fire, hoping that the excited and maddened flood of horses would divide and pass on each side of it. As the galloping mass drew-near our howes began to snort, prick up their ears, and then to tremble; and when it burst upon us they became completely ungovernable with terror. All broke loose and joined their affrighted companions, except my mare, which struggled with the fury of a wild beast; and I only retained her by using all my strength, and at last ihrowing her on her side. On went the troop, trampling in their headlong speed over skins, dried meats, &c., and overthrowing the tents. They were soon lost in the darkness of the

night and in the wilds of the prairie, and nothing more was heard of them save the distant yelping of the curs who continued their ineffectual pursuit."

The "lasso," a simple noosed cord, is the only weapon used by the Indians in their horse-hunts. Armed with this potent implement. and mounted on their savage steeds, as naked as themselves, the Indians give chase to the flying herds, yelling as only Indians can yell, and handling the lissom lasso ready for a "cast" as soon as they come up to the wild horses, as, after a run of a score of miles or so, they invallably do; for-and it is a curious fact-the trained horse, bearing His trainer on his back, possesses greater fleetness and endurance than the wild fellow, unbacked and unburthened as he is. The Indian singles out a horse from the flying herd, and, whir ! flics the unerring cord, the noose making a necklace for the stricken creature, who, so suddenly checked in his thundering career, stands still as a marble horse, while the lasso-its owner having halted his horse the inoment the cord was cast-is strained like a thick wire of iron. The skill of both Guachos and Indians in using the lasso is extraordinary. Their faith in it, too, is unbounded. During the war of independence, eight or ten Guachos who had never seen a piece of artillery, till one was fired at them in the streets of Buenos Ayres, fearlessly galloped up to it, placed their lassos over the carriage of the cannon, and fairly overturned it.

From being constantly on horseback, the Indians can scarcely walk; from their infancy they are accustomed to it, and among them baby "begins to ride" at much about the same period of its existence as amongst us the little thing begins to find what feet were given thim for. The Indians of the prairies and pampas, whose forefathers fied in horror and dismay from the double-headed centaurs, whose arms were thunder and lightning, are now literally incorporated with the brave beast. In consequence of this constant horse-riding, both Indians and Guachos present a by no means commanding appearance when on *terra firma*; their legs are weak and bowed, as may be seen with our old-fashioned postilions; the majesty of bearing which marks their upper portion making the deformity more conspicuous. If there is a portion of his carcase the Guacho despises, it is his legs.

As riders, the Guachos are inferior to the Indians—a fact the former are not slow to coffees; not but that the Guacho is able to keep his seat as well as his natural enemy the Indian. Mr. Darwin records the case of a Guacho who bet that he would throw his horse down twenty times, and alight on his feet nineteen times out of the twenty. "I recollect seeing a Guacho," he says, "riding a very stubborn horse, who three times reared so excessively high as to fall backward with great violence. The man judged with uncommon coolness the proper moment of slipping off, not an instant before or after the right time. Directly the horse rose, the man jumped on his back, and at last away they started at a gallop. The Guacho never appears to exercise any amount of physical force. I was one day watching a good rider, as we were galloping along at a rapid pace, and thought to myself, surely if the horse starts, you appear so careless on your seat, you must fall. At this moment, an ostrich sprang from its nest, right beneath the horse's nose. The young colt bounded on one side like a stag; but as for the man, all that could be said was that he started and took fright as part of the horse."

The same authority gives an instance of the wonderful command the Guacho has over his steed. A cattle-owner was riding home at night, when he was overtaken by two horsemen, who, on being challenged, drew their swords and attacked him. Being mounted on a good horse, he shot away from them, and they came thundering behind in full pursuit. He allowed them to approach within a few yards of him, and then he suddenly brought his horse to a dead check. The pursuers were obliged to shoot ahead. Dashing after them, the pursued became the pursuer, and buried his knife in the back of one robber and severely wounded the other.

When the Indians of the pampas go to war with their mortal foes, the "Christians," they take with them a troop of horses and mares besides those on which they are mounted. Driving them before them with savage yells, they start at a gallop to accomplish journeys of hundreds of miles; as soon as the horse they ride is tired they leap to the back of a fiesh one—always reserving the best till they come within a mile or so of the enemy's camp. Pasture abounds for their steeds wherever they choose to halt, and for meat they kill one of two of the young mares of the troop. So it is that the very animal introduced for the annihilation of the pampas Indian, is to his descendants a means by which to live, and eat, and make merry, and defy the world.

THE WILD ASS.

THE ass family is extensive. There is the *khur*, the wild ass of Persia; the *dziggetai* of the Scinde coast; the *yo-to-tze* of China; the *onager* bestrode by the sturdy Kalmuc, and a nondescript animal "neither horse nor ass," peculiar to the Himalayas, and called a *kung*.

Concerning the ass, there is a vulgar notion, that the animal does not exist in a wild state, and, in my humble opinion, if ever obstinate disbelief deserved excuse it does in this instance. It is easy enough to imagine a wild horse, or bull, or dog, or cat, or rabbit; but take the ass, the humble donkey with which we are all familiar. Regard hine as he broods along moodily, slowly bungling over the cobblestones, oppressed by the weight of a pyramid of cabbages and several sieves of potatoes, the property of the costermonger, his master. Watch his eye when the heavy old whip-stock is brought down with the force of a Fijian war-club across his hollow flanks; he does not even blink, or, if he does, it is not the sudden wince of pain, but a deliberate and contemptuous closing of his optics, expressive of his utter indifference to any amount of whip-stock that may be applied. See him even at liberty out on the common. Does he frisk about and gambol in the sun, as does even the sand-carter's worn-out Flemish mare? No; he moves about as though the wheels were still at his heels, and crops the grass laboriously; or turns his tail to the wind and for an hour stands stock-still, as though waiting for the "kim up," the magic words by which his life is regulated.

Can any one, after contemplating such a picture, imagine the ass graceful in shape as the antelope, nimble as the Bavarian chamois, and fleeter than the lithe-limbed Arabian steed ? So it is, however; and out of at least twenty recorded instances testifying to the above facts, the following, given by Sir Thomas Ker Porter, will serve: "My greyhound suddenly started off in pursuit of an animal which my Persians said, from the glimpse they had of it, was an antelope. I instantly set spurs to my horse, and with my attendants gave chase. After an unrelaxed gallop of full three miles, we came upon the dog, who was then within a short stretch of the creature he pursued, and to my surprise, and at first vexation, I saw it to be an ass. Upon a moment's reflection, however, judging from its fleetness that it must be a wild one, a creature little known in Europe, but which the Persians prize as an object of the chase, I determined on approaching it, as quickly as the very swift Arab on which I was mounted would carry me; but the single instance of checking my horse to consider, had given our game such a head of us that, notwithstanding all our speed, we could not recover our ground on him. I, however, happened to be considerably before my companions, when at a certain distance the animal in its turn made a pause, and allowed me to approach within pistol-shot of him. He then darted off again with the quickness of thought, capering, kicking, and sporting in his flight, as if he were not blown in the least, and the chase were his pastime. When my Persian followers came up, they regretted that I had not shot the creature when he was within my aim, tolling me that his flesh was regarded in Persia as a great delicacy. The prodigious swiftness and peculiar manner in which he fled across the plain, above all, reminded me of the striking portrait drawn by the author of the Book of Job."

Comparing the size of the domesticated ass peculiar to England with that met in other countries, it would seem that either our climate or productions, or both, were inimical to his well-doing. Probably, however, negligence respecting their propagation, and the baneful practice of allowing them constantly to breed "in and in," as it is termed, may have more to do with the degeneration of the English species, than either of the above-mentioned causes or any other. Our forefathers were not so familiar with the donkey as are we. At the time of Ethelred, mention is made of it as a costly animal; but it seems to have died out for a long period, and even so recently as the reign of Queen Elizabeth, the ass, on account of its farity, was as valuable as the well-bred horse.

With respect to the origin of the domestic ass, a well-informed writer observes: "Most authorities refer it to the onager or koulan; but it is not improbable that other species interbreeding with this may have contributed to the modifications which the domestic ass from a remote period appears to have presented. The ass, however, has never lost the indications which prove that the original stock was destined by nature for a dry, rugged, mountainous country, destitute of luxurious humid plains abounding with succulent vegetation. The hoofs, unlike those of the horse, are long, concave beneath, with extremely sharp rims, and admirably adapted for treading with security on slippery, rough declivities, which, as experience has fully taught, are ill-suited for the round flat hoof of the horse. The shoulders are comparatively lower and the croup higher than in the horse, and the animal can better support a weight thrown partially on the croup or hip-bones than when placed behind the withers sustained by the dorsal vertebræ; in ascending or descending steep rugged paths the pressure of the weight on the croup would be the least disadvantageous to a beast of burden."

The ass's time for going with young is about eleven months, and seldom more than one foal is produced at a birth. At the age of four ycars the animal is in its prime, and its duration of life ranges from twenty-five to forty years. Instances, however, are recorded of the ass living over fifty years. There was one who many years ago drew up the water from the great well at Carisbrook Castle, Isle of Wight; what the age of this animal was when it entered the service is not known; but Brettel says, "For the space of fifty years it worked daily at the wheel, and, even then, died in perfect health and strength by accidentally falling over the ramparts of the castle." It is wonderful how Nature will assert herself defiant of all artifical processes brought to bear against her ! Here we see the ass, whose progenitors, dead two or three centuries, were stabled and fed on grass and clover, just as he is, preferring the dry coarse thistle to the juciest herbage, drinking as sparingly as though still an inhabitant of the thirsty desert, avoiding, if possible, plashing his dry horny hoof in the shallow wayside gutter, and never so happy as when, on a sultary summer day, he can fling himself down on the hot, dusty road, and leisurely rasp the length and breadth of his callous-hided carcase amongst the sandy particles.

Of the zebra section of the genus Equus, there exist three species, the quagga, the dauw, and the zebra. Le Vaillant notices a fourth, as existing in South Africa; an animal of a pale yellow, or Isabelline colour, called by the Greater Manaquas the white zebra. This, howover, seems to be all that is known of the last-mentioned animal.

The quagga is common to the plains of Southern Africa, congregates

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in great companies, and mixes freely with gnus and ostrichesindeed, the predilection of the ostrich for the quagga's company has escaped the observation of scarcely any African traveller. The quagga is larger than the wild ass, and resolutely faces both the hyæna and wild dog. It is not easily tamed, and by no means inclined to drudgery, even when familiarized with domesticated cattle. Its natural courage, however, never deserts it; and should the leopard come sneaking in the night round the Boer farmer's cattle-pen, and a quagga should happen to be among the inclosed, the great spotted cat may as well take himself off, without he prefers making acquaintance with guardian quagga's razor-like hoofs.

The dauw, or daw, is similar in structure and appearance to the quagga, and is chiefly found on the vast plains north of the Gareep, or Orange River. The zebra is likewise an inhabitant of Southern Africa, shunning the presence of man, roaming free among the solitary mountains. Andersson describes the voice of the zebra as being very peculiar—like that of a man in mortal peril. On one occasion, he, together with his company, rushed out in dismay to see who it was the lion had carried off, and found my lord Leo in the very act of butchering a zebra, from which the most terrible groans were emanating.



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