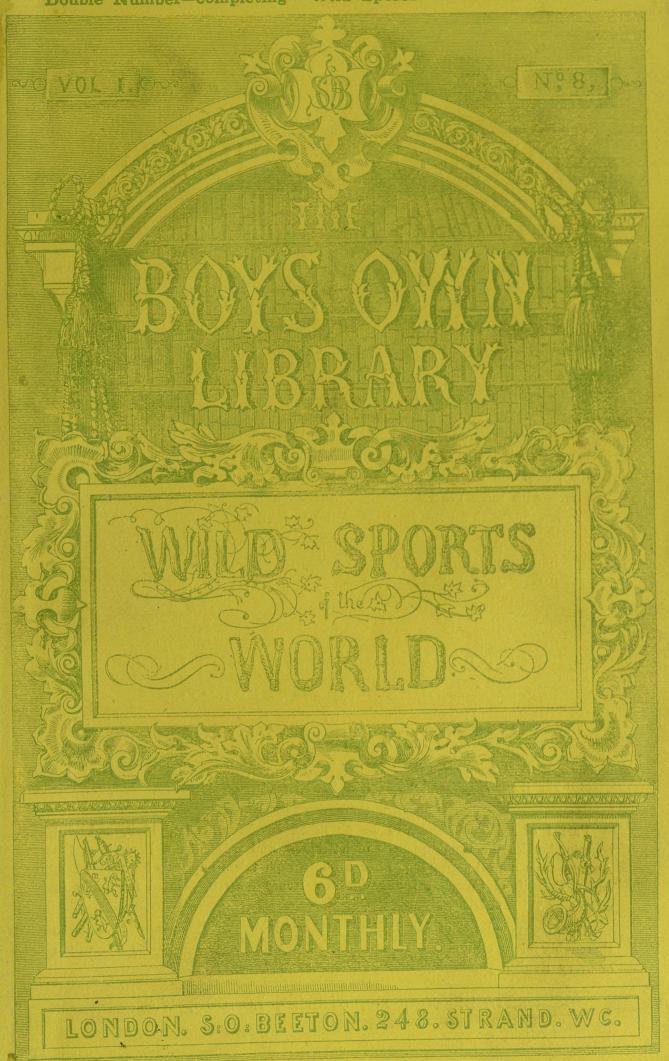
Double Number-completing "Wild Sports"-Price One Shilling.



THE

BOY'S OWN LIBRARY.

NOTICE TO SUBSCRIBERS.

The completion of the First Volume of the BOY'S OWN LIBRARY—"WILD SPORTS OF THE WORLD"—presents to the projector an opportunity of returning his thanks for the support which has been accorded to the enterprise. The circulation of the BOY'S OWN LIBRARY—good from its very commencement—increased gradually, month by month, until, with the appearance of the present number, the publication has reached a position which commands its future success, and will enable the publisher to sustain, in future works, the lavish expenditure which the just completed volume displays.

Mr. James Greenwood, the author of "WILD SPORTS OF THE WORLD," has every reason to be satisfied with the manner in which his labours have been reviewed by the public and the press; for it may be stated, as a fact, that no work was ever welcomed with more general applause. Mr. James Greenwood is now engaged in writing another work for the BOY'S OWN LIBRARY—"CURIOSITIES OF SAVAGE LIFE"—a subject capable of forming one of the most interesting volumes ever produced.

The title of the New Volume (Volume 2) of the BOY'S OWN LIBRARY is

Phaulcon;

THE SHIP-BOY WHO BECAME A PRIME MINISTER,
A Romantic Biography.

BY

WILLIAM DALTON,

Author of "Will Adams, the First Englishman in Japan," "The Wolf-Boy of China," "The White Elephant," "The War Tiger," "Cortes," "Pizarro," &c. &c.

Part 1 of "Phaulcon" will be published on January 1st, 1862, and will-contain, besides the usual quantity of letterpress and woodcuts, a Portrait of the Author, from a steel engraving, after a photograph taken expressly for this work, and a Beautifully Coloured Illustration, by Henry Warren, printed fac-simile in colours by William Dickes.

The great popularity of Mr. Dalton's works is known to all our readers, and the thoroughly manly character of his writing cannot fail to command the admiration of every English youth.

S. O. BEETON, 248, STRAND, LONDON, W.C.

To be completed in Twenty-four Monthly Parts,

Price Sixpence Each.

PART I. ON DECEMBER 1st, 1861.

BEETON'S DICTIONARY

OF UNIVERSAL INFORMATION IN

SCIENCE, ART, & LITERATURE;

COMPRISING

I.—A COMPLETE SUMMARY OF MORAL, MATHEMATICAL, PHYSICAL, AND NATURAL SCIENCE,

II.—A PLAIN DESCRIPTION OF THE ARTS.

III.—AN INTERESTING SYNOPSIS OF LITERARY KNOWLEDGE.

With the Pronunciation and Etymology of every leading Term.

Illustrated with upwards of One Thousand Engravings.

IN the first volume of "BEETON'S DICTION-ARY," under the general and comprehensive heads of Biography and Geography has been furnished a full and satisfactory account of geography, history, biography, mythology, and biblical knowledge, together with a reliable chronological record. Its readers have been supplied with information as to every person in sacred and profane history to whom the attention of mankind has been drawn, as well as with a succinct account of every place upon the globe which was of importance in a geographical, historical, or industrial sense. It has, in fact, been the aim of the first volume of "BEETON'S DICTIONARY" to supply a vast body of facts in so far as they related to the Names of Persons and Places.

In the second volume of "BEETON'S DICTIONARY" it is intended to give the non-scientific and general reader a full and faithful account of the forces which animate Nature, and which are incessantly acting upon mankind,—of the elements of which all things are composed,—of inventions of every kind, and of every art and process to which the genius of man has given birth; in other words, to furnish an immense and interesting body of facts in so far as they relate to *Things*.

There already exist, it must be admitted, a great number of works which are intended to

meet this want; such as the Dictionaries of Language, or Lexicons, and the many large Encyclopædias of various kinds; but the first of these works, by the very nature of their plan, can only supply a bare definition of words, without penetrating into the nature of the things which these words designate. In the Encyclopædias, which are professedly published to accomplish that which is beyond the province of the Lexicons,long dissertations, complete technical treatises even, are given, rather than concentrated notices: the volumes attaining such vast proportions as to place them far beyond the reach of the great mass of the reading public. Too high in price, too slow in growth, too unhandy, unwieldy, and diffuse, these important works suggest a want that can only be supplied by a work which, without being as bare and unsatisfactory as the dictionaries of language, without being as bulky and expensive as the encyclopædias, shall nevertheless furnish, in the closest, tersest, and most exact manner, the essence, the substance, the indispensable information upon each subject. By the employment of brevity of expression, and a well-considered plan, this essential knowledge may be collected into a single volume, cheap in price, portable in size, and convenient for reference; in a word, a Practical Encyclopædia, where everything shall find a place, upon which something useful or interesting may be said.

Thus, in the pages of the "Universal Dic-TIONARY OF SCIENCE, ART, AND LITERATURE," a satisfactory and ready reply will be given to all such questions as the following:—

When was the Circulation of the Blood discovered?

What is the common name of that genus of birds called in natural history Anas?

What is the meaning of the terms Æsthetics, Anapest, Xystos, and Perfect Number?

What are "Bulls" and "Bears" upon the Stock Exchange?

How do the symptoms of Hypochondriasis display themselves?

What is a Post Obit?

When was the Julian Calendar, or "Old Style," abolished?

What is a Corbel?

When was the last great step in Arithmetic made?

What is the meaning of the term Phytotomy?
When was the first recorded dissection of the
Human Body made?

Where do the best British Oysters come from, and where the worst?

What does a "Chattel" mean in Law?

To what cause is due the great superiority of the modern numeral system over the Greek and Roman?

How many species of Conic Sections are there? Who are the Locofocos?

Which is the simplest of the Mechanical Powers? How many members does the House of Commons consist of?

What is the title "Duke" derived from?

How is Onomatopæia pronounced, and what is its meaning?

What was the origin of Parliament?

On which side of the parchment is a Papal Bull written?—Whence its name?

Which is the Psoas muscle?

What is Psychology?

What is an Architrave?

How are the patterns on Paper-hangings produced?

What is the derivation of the term "Martinet"? When is a Ship on an "even keel"?

With whom does the election of Coroner rest?—
How long does his term of office last?—By
whom may he be dismissed?

What is a "sleeper" in Railway engineering? Which are the principal Mineral Emetics?

Why were the Martello towers erected?

What is the narcotic principle of Opium called? When was the Double Rule of Three discovered?

What is Catgut prepared from ?-

What is the meaning of the terms "Great go" and "Little go" in University education?

Who were the Master-singers?

What is a Remittent Fever?

What are Nebulæ?

What is a "Salt" in Chemistry?

What is the average weight of a full-grown Salmon?

In the compilation of the different articles in this Dictionary, a uniform plan will be followed. Immediately after the name of each leading word there will be placed its pronunciation and its etymology, to serve the double purpose of giving a clearer meaning to it, and as an aid to its remembrance. Next will follow its scientific definition, -an account of its essentials and characteristics, -its divisions and usual classifications, its uses and appliances in Science, the Arts, or Literature. The article will terminate, when there is occasion, with an historical notice, which shall give an account of the origin and growth of each Science and Art, with the date of its discovery or first application. Finally, there will be added to the principal articles bibliographical notices, which shall indicate the best works published upon each subject.

As for the style, the very nature of the work demands that the greatest number of facts shall be grouped together in the fewest words; that the motto shall be, -Res, non verba. The style, then, must be laconic, without ceasing to be clear. Also, it must be scrupulously exact. No weak, periphrastic mode of expression will serve to give a proper and forcible description of a mineral, a vegetable, an animal-of the analysis of a substance, or the demonstration of a theorem. The natural terms, as written by mineralogists, botanists, zoologists, chemists, and mathematicians, will be used; but in such a way that the ordinary reader shall be enabled to understand them, without missing a shade of their meaning. Further, especial care will be taken, by means of cross-references, to explain in alphabetical order whatever terms might present any difficulty. Again, by the plentiful use of crossreferences, the work will be made more completely its own Index than an Encyclopædia is in general found to be. Thus "BEETON'S DIC-TIONARY OF SCIENCE, ART, AND LITERATURE," will not only contain everything that is usually

sought in such works; but everything so arranged, that all who consult the book may at once find what they are in search of.

In order to insure harmony throughout this Dictionary, no less than to avoid contradictions, omissions, repetitions, or false references, which too often disfigure works of the kind, it will be the duty of one of its editors to pay especial attention to these matters of detail—to revise all the articles, and to make all fit each other as the links of one chain.

It may be safely asserted, that this work, brought down to the latest stage of knowledge, will be found to present a combination of that scientific, literary, and artistic information, which is, at the present time, regarded as the indispensable condition of any education pretending to be serious and complete.

"BEETON'S DICTIONARY OF SCIENCE, ART, AND LITERATURE," will be compiled with the care demanded by its importance. The extraordinary impulse which scientific knowledge has received within the last quarter of a century,—the grand discoveries which have been made,—the marvellous applications to which these discoveries have been turned, have opened the eyes of the people to the truth of the declaration that "knowledge is power," and have caused the study of Science to become especially attractive to the minds of the great mass of the community.

To meet, then, this desire for scientific knowledge is the aim of "BEETON'S DICTIONARY." Collecting into an harmonious whole—into a single volume—all the precious information which is scattered through scores of learned treatises, or buried in the depths of vast encyclopædias, presenting it to its readers in the briefest, simplest, and most exact manner, this work will bring

within the reach of the many, that knowledge which has too long been reserved for the few. To the general reader it will give a full definition of those technical terms with which he is constantly meeting in the newspapers, in the magazines, in conversation even, and which are, too frequently, enigmas to him. It will give an account of machines and processes he every day sees without comprehending. It will recall to the mind of the student, sometimes perhaps even to the expert, the elements and the essential properties of a chemical combination; the distinctive characteristics of a class or of an order in botany, in zoology ;-it will point out to the uninitiated the nature and classification of the animal kingdom, and, in medicine, it will define the symptoms of those diseases which assail mankind. If it will not be possible for it to give an exhaustive reply to every question, it will, at any rate, thanks to its bibliographical notices, point out to the earnest inquirer the sources where he may obtain an abundant response.

Designed then, like the just completed Dictionary of Biography and Geography, to meet a real want, conceived in the same spirit, of the same form and proportions, executed by the same editors, with competent auxiliaries, the "DICTIONARY OF SCIENCE, ART, AND LITERATURE," must become the inseparable companion of its predecessor. The two volumes will, in a word, form the separate moieties of a complete whole, —each being incomplete without its fellow.

For the mechanical execution of the Dictionary we may add, that the paper and printing will be of the best, and the numerous Illustrations the work of competent artists. The Parts will also frequently contain large plates, printed, when necessary, in tints and colours.

BEETON'S DICTIONARY

OF UNIVERSAL INFORMATION IN

SCIENCE, ART, AND LITERATURE.

PART I. ON DECEMBER 1st, 1861,

Price Sixpence.

To be completed in Twenty-four Monthly Parts.

A Specimen Number sent, post-free, on receipt of Six Stamps.

LONDON: S. O. BEETON, 248, STRAND, W.C.;

AND ALL BOOKSELLERS IN TOWN AND COUNTRY.

Complete in One Volume, A to Z, strongly and handsomely bound in Cloth,

BEETON'S DICTIONARY

OF

UNIVERSAL INFORMATION;

COMPRISING

GEOGRAPHY, BIOGRAPHY, HISTORY, MYTHOLOGY, BIBLE KNOWLEDGE, CHRONOLOGY;

With the Pronunciation of every Proper Name.

Illustrated with WOODCUTS, MAPS, USEFUL TABLES, and a COLOURED CHRONOLOGICAL CHART.

A FEW words of special reference to the manner in which the several portions of this work are treated, may be acceptable.

0000

In the Geographical department, the abundance of materials was such, that, in order to be comprehensive, it was necessary to be brief. Great condensation was therefore required, that no place, natural feature, or historical fact connected with it, of any importance, should be omitted, and that this portion of the work should have all the essential qualities of a universal Gazetteer. Accordingly, it will be found to do more than serve all the common purposes of Geographical reference, whilst it is accompanied by Maps, expressly engraved, for further illustration.

In Biography, the difficulty was not what to choose, but what to reject. "Eminent," or "distinguished" persons have lived in all ages, and have figured in every condition of life. The object here, however, has been, as far as possible, to give a place to excellence, wherever it has appeared, as well as to indicate its peculiarity. The value of time is every day becoming more and more appreciated, and he who loses the least of it, whether in manual or mental labour, will add most to his stores of wealth or of knowledge. Keeping this in mind, the principal facts in the lives of the "Illustrious" have specially been attended to, in order that the reader may at a glance, so to speak, see upon what ground it is that these "Worthies" have a claim to distinction.

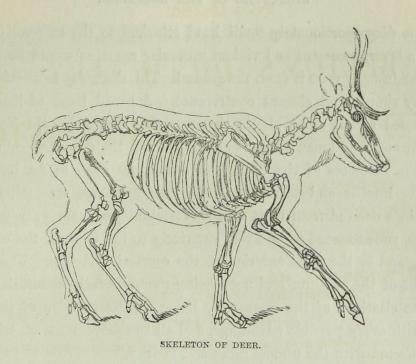
In MYTHOLOGY, whilst the most scrupulous care has been taken to preserve all the principal features and poetical interest of the Greek and Roman legends, they have been freed from impurities; but so, it is hoped, as not to injure, far less destroy, the genius and invention by which many of them are so eminently characterized.

The BIBLE HISTORY it was not thought necessary to extend to a great length, simply from the expectation that, in a Christian country, there are few without a copy of the "Book" which contains the great truths of the faith professed by its inhabitants, and few, consequently, ignorant of the principal events of which that book is composed. Moreover, the valuable Commentary and references to the various readings and parallel passages published with "Beeton's Illuminated Family Bible" supersede anything which might have been prepared for this work.

The Chronological Tables have been carefully compiled, and embrace all the leading events which have occurred from the commencement of the Creation down to the present period. These will, in many instances, serve as suggestive indices to articles where, in the body of the work, the events themselves are treated at greater length in connection with those matters to which they have relation.

For the Pronunciation, it was remembered how little attention has been paid, by the great mass of the people, to this subject, and it was deemed a novel and a useful thing to show, as far as the power of written characters, and not spoken words, would allow, the manner of correctly pronouncing proper names.

Having thus indicated the general character, and specified the plan pursued in the particular portions of this Dictionary, the EDITORS have nothing more to do than to make their acknowledgments to their Subscribers and the Press, for the handsome manner in which their labours have been received and spoken of. They have faithfully fulfilled, as far as it was in their power, all the promises made, three years ago, by the prospectus of the work, in announcing its advent to the public.

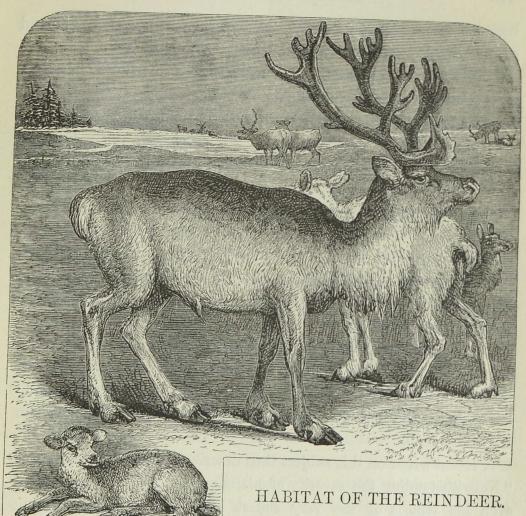


STRUCTURE OF THE REINDEER.

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 does 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. 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 so 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 occipital bone, 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."



What the horse is to us is the reindeer 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 frozen 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.

A.SMelville

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 reindeer-

bone 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 thoroughly 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. tent, when standing, is only six feet high, and not much more in diameter. In this circumscribed space his whole family, wife, 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 Above the fire a rack forms a shelf for countless tough cheeses, pieces of reindeer's flesh, bowls of milk, bladders of deer'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 bye, 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 season, and is eaten as we eat cheese.

Besides these, the Laplander makes another reserve for "hard times." In the winter season the deer give no milk, still the reindeer-farmer has this necessary article of diet on hand all the year round, not in a liquified state, but in blocks hard and dense as marble—

frozen 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 martin-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

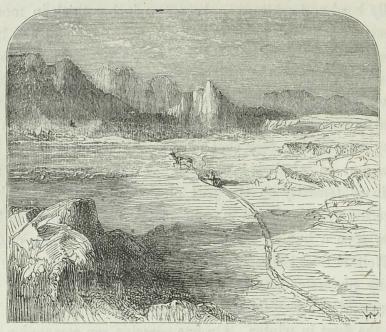
winter season, however, when they come down to the islands and the wide flats on the seashore, it is likely that they congregate in great numbers, travelling as they do over vast tracts of land and ice in search of food.

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 perfeetly 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 deer 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 of rocks by the frost in winter. On one occasion my companion found a

troop 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 well-grown 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 dinner."



LAPLAND SLEDGE.

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 backwards can 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 were found lying dead in each other's grasp, the latter having with his horns 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 doe 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 clear-sighted 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 know-ledge, 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 flew 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

349

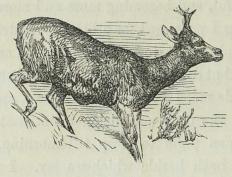
a trace of Cobus or gemsbok could be seen. At length, after fagging a few miles farther in the direction he thought it probable Cobus would take, he had the satisfaction to see the worthy Hottentot's shirt fluttering on a distant eminence as a signal. On making his way thereto, there was a fine bull 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.

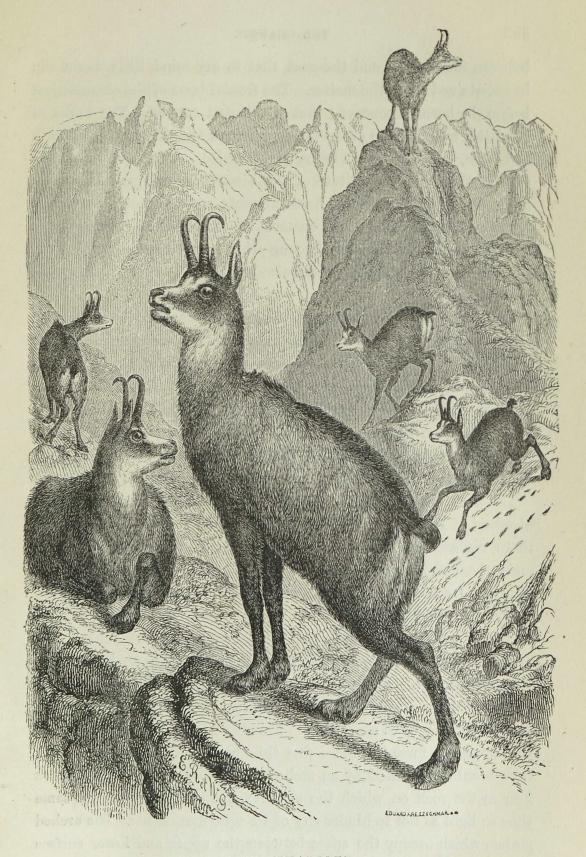
"It was now late—too late to take home the cow oryx that night: the bull was much too far from my camp to think of saving any part of his flesh; I therefore sent off Cobus to the waggons to fetch water and bread, desiring him to meet me at the spot where the cow gemsbok was lying, where I resolved to 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. 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.

350

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."



ROEBUCK.



THE CHAMOIS.

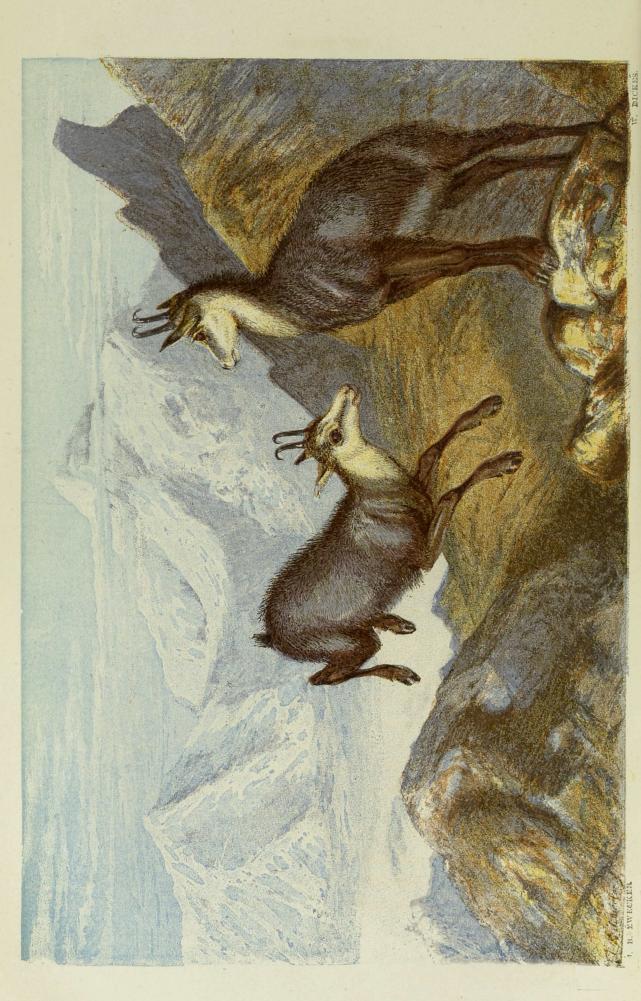
It has been a disputed point whether the chamois should be classed with the goat or antelope genus. There is, however, so little affinity

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 bones 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 thin 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 arched 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 stronger-looking 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

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 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. 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 accourrements 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 pursuit, 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 skin 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, Midst the snow-fields of the mountain 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 Gemzé 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 chamois 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 eyrie overhead,
There the roaring torrent gushes
Madly o'er its craggy bed.
Hark! from whence that distant bleating,
Like a whistle clear and shrill?
Gemzé! 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 twinkling 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 big-

nailed boots leaving a deep print in the snow; across his shoulders is slung his trusty rifle and his "reick-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 reserved 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 reick-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 things worth relating.

The chamois hunter has been thus vividly described. 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 effaced, nor likely to be. 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 Rattlin, of her Majesty's war-sloop, "Thunderer," regards the slop-tailor of Ratcliffe Highway. The chamois hunter yearns to be aloft as earnestly 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. 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 be 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."

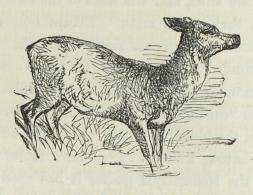
"I feel I cannot, so will not try," I replied, and began to look for some other way. The cleft itself across which Xavier sprang was only about twelve or fourteen feet deep. I was at the bottom of it, and while standing between the two rocks I thought I might manage to climb upwards as a sweep passes 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 getting 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 backward. 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

it 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."



FALLOW DEMR BUCK.

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 difficult 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 luring 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 lip (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. 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 worldly 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 canoe, will, instead of endeavouring 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 a 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 tobacco, 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 poaching.

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. 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 turs 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; but, 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 thoroughly 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 hind-legs, 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 disabled 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 seldom 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 business 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 call 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-bearer.

"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. 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—quite 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 dead 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-rh—quoo-o-orr.
- "Away flies the startling sound, echoing through the forests. What sacrilege 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 more 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 there 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 earnest, Jim taking the lead and we following, noiseless as snakes, in Indian file. Suddenly a distant sound strikes our ears, 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 our 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 unexpectedly we leave the dense underwood and stand on the edge of a little open valley. Jim, as I emerge from the thicket immediately 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 rifle 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 ease 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. 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. 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 of distress, and should a fox or jackal be found molesting her helpless 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

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. 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 hind. In either case the chances are that the cord gets between the 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: fire 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 unfortunate 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

standing in the torrent, every now and then menacing Ponto with his 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 ravine 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 half-way 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-fed 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 prey 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 act 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,

yawn, 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, deserving 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, eat 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 cleverest steeple-chaser, but clearing them with ease, 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 surround 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 least, 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 bull 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.

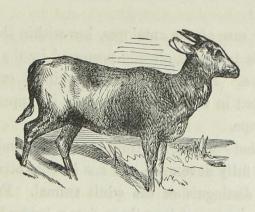
"I saw that the quiet plan was no good with my nervous brute, so turning round, I gave him a little canter and brought him down again to the muddy crossing with a rush. When he found what I purposed, he tried to refuse; but I let drop both spurs into his flank with a vigorous dig, and at the same time 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 so 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 ravine 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 sac, 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.

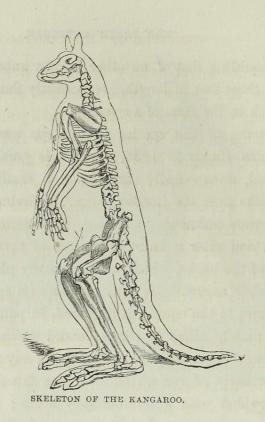
This, the most rare of the antelopes, has within the last few weeks been added to the treasures already possessed by the Royal Zoological Society of London. Beyond the stuffed skin of one of them some years ago deposited in the British Museum, its appearance was before unknown in Europe.

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 killing one 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 and tan. Judging from the compact form of the hoof, the habitat of 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 rare occurrence within Moselekatse's country that they had, in all probability, never even seen one."

en decar of Man of highern south mining from a



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 thirty-ninth 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 inch 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 fœtus 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 fœtus may have been deposited in the pouch; the latter attaching itself to a different nipple from the one which had previously been in use."



ALL marsupiated animals (so called 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 kangaroo 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-hunting 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 hind 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.

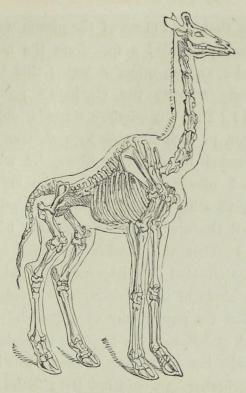
"Exasperated by the irreparable loss of my poor dog, I hastened to its revenge, nothing doubting that with one fell sweep of my formidable club my enemy would be prostrate at my feet. Alas! decay and the still more remorseless white ants frustrated my murderous intentions, and all but left me a victim to my strange and active foe. No sooner 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 clung 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."



KANGAROO SPOOR.



SKELETON OF THE GIRAFFE.

THE GIRAFFE.

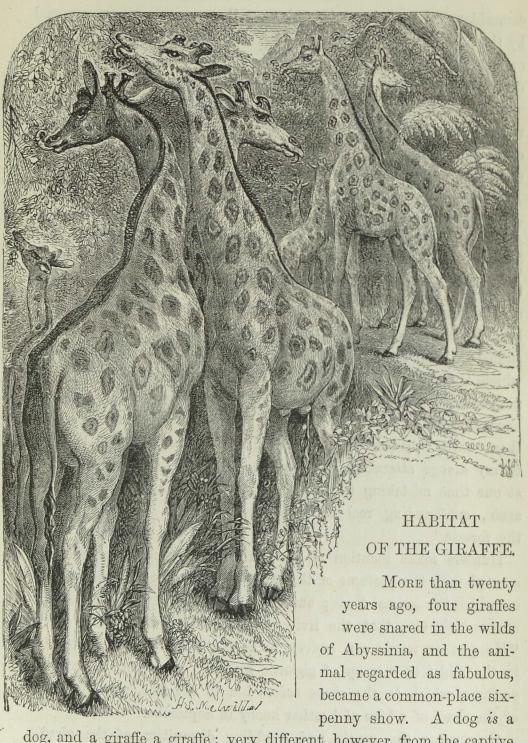
ITS STRUCTURE.

The 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 merest 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 flee 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 pendulum 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.



dog, and a giraffe a giraffe; 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 innumerable 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.



FULL TILT AT THE HERD.

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 quicksilver 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.

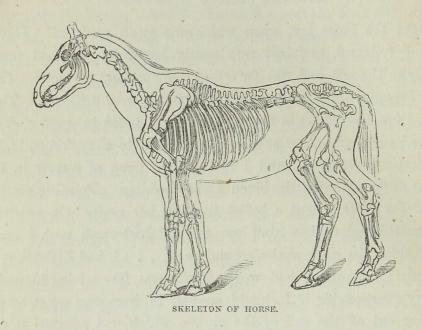
"Notwithstanding that I had taken the field expressly to look for giraffes, and had taken four mounted Hottentots in my train, all excepting Piet had, as usual, slipped off unperceived in pursuit of a troop of koodoos. Our stealthy approach was soon opposed by an ill-tempered rhinoceros, which, with 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 was run. Patting the steaming neck of my good steed, I urged him 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 deadly grooved bore, like a falling minaret he bowed his graceful head, and was presently prostrate in the dust. Never shall I forget the intoxicating 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. 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 a 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 I succeeded in reaching after dark."



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 short 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. 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.

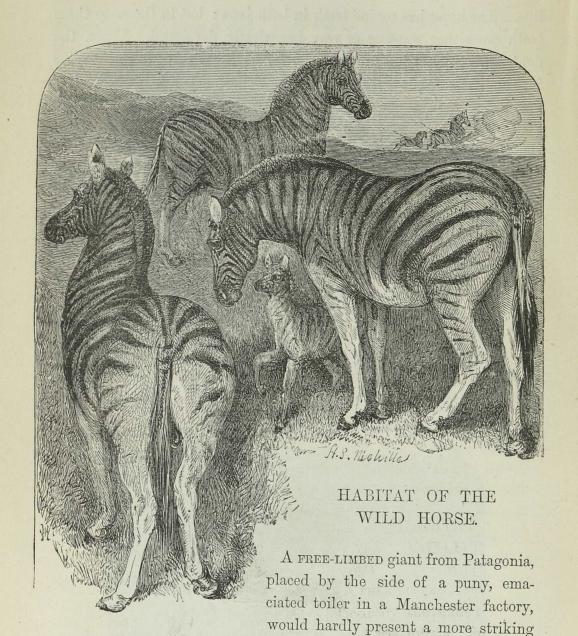
In the male, the withers are higher than in the female, and the neck thicker and more arched. The height of a horse at the shoulders is equal to his length from the chest to the buttock; so that, shorn of the head, neck and tail, the body and limbs might be drawn within the four lines of a square, the 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 nippers, 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 show 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.



contrast than a modern cab-horse by the side of a shoeless 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 centuries 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 full-grown 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, long-limbed 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 erected over it. This, however, did not terminate the funeral 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 a 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 body 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!

So it is throughout ancient history, sacred and profane, and hundreds of 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 though 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. Sometimes 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 to 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 held 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."

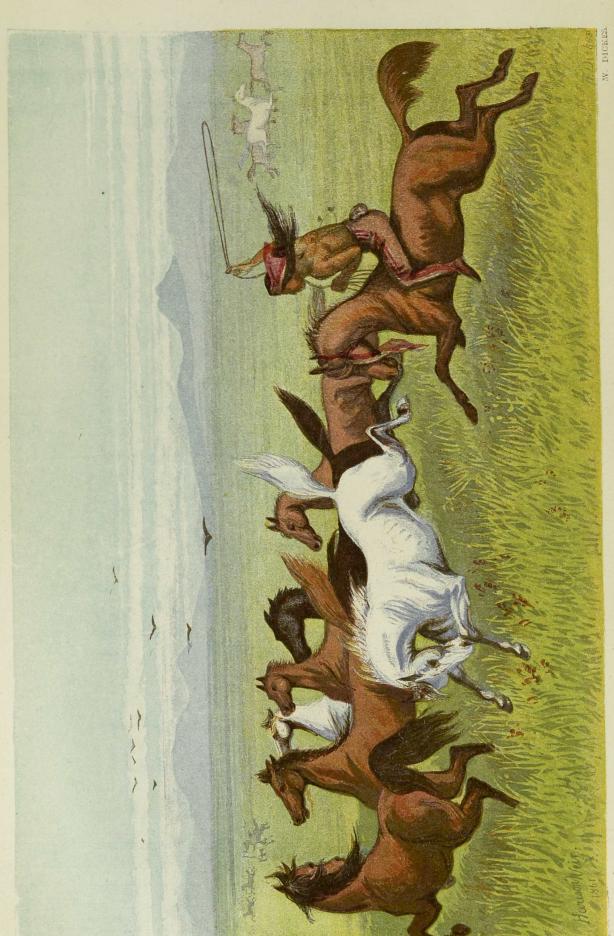
The true Arab steed is by no means a large animal—never indeed exceeding fifteen hands, and seldom more than fourteen hands, in height. He is slim, sinewy, with large and open nostrils, short square forehead, arched neck, and with so delicate a skin that the yeins beneath are as apparent as the lines on the map. The kohlâna is the choicest of Arab horses, 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.

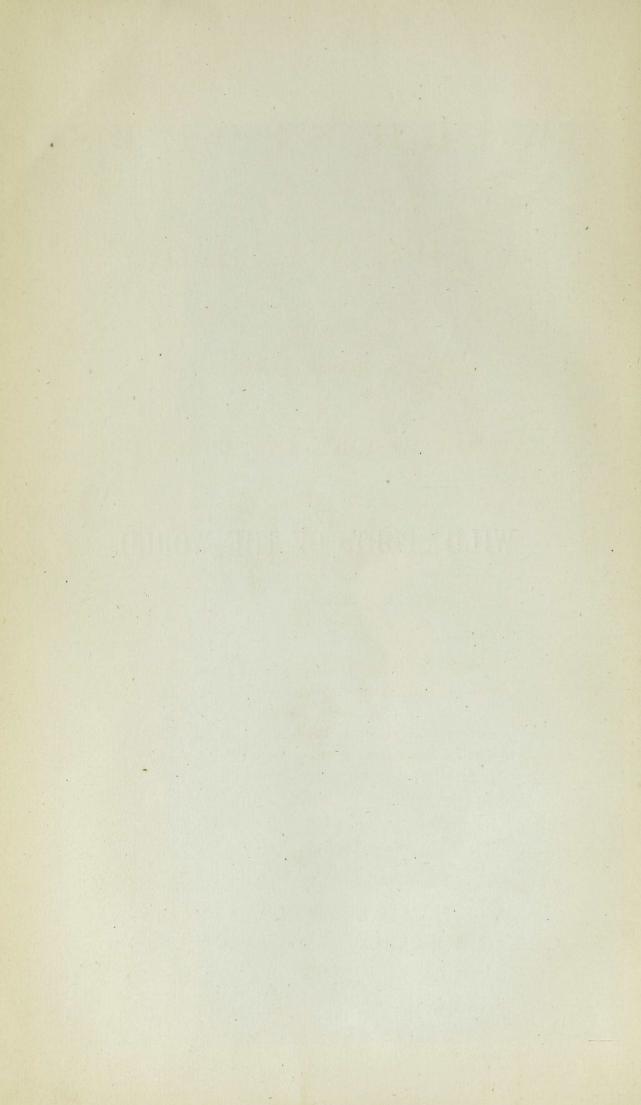
The feats of speed and endurance these intensely domesticated animals will perform, is wonderful. Fifty miles, without a moment's halt, is by no means an uncommon journey for an Arab horse, of the true breed, to perform; indeed, Colonel Smith relates that a Mr. Frazer rode from Shirauz to Teherann, a 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.





H. WEIR.

WILD SPORTS OF THE WORLD.



WILD SPORTS

OF

THE WORLD:

A BOY'S BOOK

OF

NATURAL HISTORY AND ADVENTURE.

BY JAMES GREENWOOD.

WITH WOODCUTS FROM DESIGNS BY HARDEN MELVILLE AND WILLIAM HARVEY,
COLOURED ILLUSTRATIONS FROM WATER-COLOUR DRAWINGS BY J. B. ZWECKER, HARRISON WEIR

AND HARDEN MELVILLE,

PORTRAITS OF CELEBRATED HUNTERS FROM ORIGINAL PHOTOGRAPHS,
AND MAPS SHOWING THE HABITATS OF ANIMALS AND PLANTS ALL OVER THE WORLD.

LONDON:

S. O. BEETON, 248, STRAND, W.C. 1862.

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 adventure is 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 vi PREFACE.

of territory, and the supplanting of less useful races, is not all the work of an adventurous people. The inspiration is omnipresent, 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 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

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 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 viii PREFACE.

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 into whose hands it is destined to fall.



ANALYSIS OF CONTENTS.

THE ELEPHANT.

Its Fossil Remains.—Ancient universality of, 1; Chinese superstition concerning—one preserved in ice upwards of a thousand years, 3; elephant relics discovered in London and other English cities—mistaken for the bones of human giants, 4; Dr. Harvey's inquest on some such—his verdict approved by Bishop Hakewell, 6; Mazurier's fossil fraud—the giant of Lucerne proved by Blumenbach to be part of the skeleton of an elephant, 7.

ITS STRUCTURE.—Quaint delusion respecting the leg-joints of the animal, 8; its dislike of lying down, 9; its marvellous power of ascending steeps when heavily laden—its vegetarian habits, 10; its anxiety respecting the safe-keeping of its trunk—wonderful formation of—its mobility and general use—not used by the calf while sucking, 12; the elephant's tusks, 14; its teeth, 15.

Its Habitat.—Quantity of food consumed by the elephant, 17; erroneous notions concerning—its dainty feeding and fondness for fruit and blossoms-amount of food consumed by it when domesticated—by no means a fair test of its natural voracity—the Ceylon elephant better supplied with food than its African cousin, 18; its nocturnal gleaning expeditions to the cultivated fields of the natives—its acute sense of hearing—its contempt for travelling fifty miles in a single night no difficulty —its feeding-grounds usually a great distance from its drinking-place—its times for drinking noted by Gordon Cumming, 19; singular note of alarm-how producedevidence of various travellers on the subject, 20; its stealthy mode of progression -desertion of water-pools by other animals on the elephant's approach—graphic description of by Andersson, 21; the elephant's distrust of the slightest fence or other obstacle to its progression—its inquisitiveness, 22; age attained by—its skeleton seldom found in the forest—theory concerning—singular superstition of the Singhalese

respecting its death, 23; affection of for progeny disputed—brief mourning for departed calves, 24; how baby elephant is weaned—family likeness of adults, 25; "caste" scrupulously observed among—the rogue elephant, 26; malicious temper of—its hostility to mankind—reciprocity of feeling on the part of the natives—elephant captives, 27; cautious tactics of, 28; its indifference as to the quality of the water it drinks, 29.

The War Elephant of the Ancients.—Its service in the armies of the Moguls—how accoutred and armed—its prowess in the battle-field, 30; Timour the Tartar's invasion of India—he makes captive the enemy's host of elephants, and enlists their services on the spot, 31; elephants employed by the King of Ava, conquered by Kublai Khan—account of by Marco Polo, 32; the story of Queen Semiramis and her elephants, 34.

How the Elephant is Trapped and TAMED.—Antiquity of the ivory trade—the article greatly used by the ancient Romans—Africa exhausted of its ivory to supply the demand, 35; a short sermon on cruelty to animals—elephants used in the Roman amphitheatres—anecdotes concerning them, 36; elephant "baiting"—Bishop Heber's account of the fighting elephants of the Rajah of Baroda—Bernier's account of an elephant fight at the Court of Ava, 37; revival of the African ivory trade, 38; elephant meat—conflicting opinions con-cerning—vast numbers slaughtered annually -a million pounds of ivory consumed in a single year in Great Britain alone—great quantities exported to China for the decoration of the temples, &c. 39; splendour of the elephant in olden times, 40; the white elephant — its colour a disease — one described by Tachard as feeding out of golden vessels—Fitch's description of a sacred one—a person of rank appointed to wash its feet in a silver bason—one described by Mr. Crauford - how it was attired, 42; expiration of the elephant's

protracted holiday—its services required by industry—the ancient plan of elephant-catching unable to supply the modern market—a trap for a hundred—the Keddah or Corral, 43; how it is constructed—number of natives required at its construction—three thousand men employed to "beat up" at one catch, 44; graphic description of a "great catch" by Sir Emerson Tennent, 45; decoy females employed—episode in the life of Siribeddi, a famous decoy—tremendous struggles of the snared beasts to escape—affecting instance of affection of a calf for its mother, 49; the occurrence of a corral a great holiday in the neighbourhood—how the captives are treated—means taken to "break" them to labour, 51.

How it is Hunted for its Ivory .-Effects of the invention of gunpowder on the elephant's existence, 52; how it used to be hunted—a hunt with spears described by Livingstone—various native modes of hunting it, 53; hamstringing—the bullet more merciful than the sword or spear one of Gordon Cumming's "sporting" adventures-how to enjoy one's coffeequeer notions of humanity, 54; where to aim at the elephant—various opinions on, the subject—little danger attending the sport, proved by the coroners' returns, 55; the African elephant larger than any other its monstrous ears—serve as shelter from the rain for its driver—the spectacle presented at the cutting up of a carcasepicture of an elephant-carcase-butcher, 56; travellers' tales, tremendous exploits with the long-bow—how Lieutenant Moodie was hunted by an elephant, 57; Mr. Andersson's appalling adventure at Kobis, 59; the "Old Shekarry's" prolonged battle with a bull elephant, 61; wondrous structure and intelligence of the elephant—the pro-found wisdom of the Creator not a subject for scientific controversy, 62; wonderful instance of the animal's sagacity as witnessed by Sir Emerson Tennent—memoir of Sir Emerson Tennent, 63.

THE LION.

STRUCTURE OF THE LION.—Intelligence of carnivorous animals superior to that of herbivorous, 65; enormous strength of the lion—the peculiar structure of its paws, 67; obtuseness of its sense of taste, 68; teeth of the lion—observations respecting by Rymer Jones, 69; eyes of the lion—a spike at the extremity of its tail—evidence of modern naturalists respecting—roar of the lion, 70; Livingstone's opinion concern-

ing, contrasted with that of other travellers and sportsmen, 71.

Habitat of the lion's regal dignity, 72; its "generosity" at least equal to that of man—its qualities as a husband and father—the treacherous vixen to whom it is coupled, 73; mortality of females in excess of that of males—the reason thereof—description of a leonine courtship—unfaithfulness of the lioness, 74; a battle royal for a fickle mate, 75; nocturnal habits of the lion—Livingstone's contempt for the king of beasts—its liking for a dark stormy night—the lioness's care of her young—how she educates them, 76; age at which the young lion commences business on its own account, 76; its helplessness in its old age, 77; lions never seen in herds—how they attack their prey, 78.

The Fighting Lion of Ancient Rome.—Gladiatorial exhibitions first instituted in Rome—how the gladiators were obtained—schools established for their education—the Colosseum, 79; various modes of fighting, 80; betting on the occasion—cruelty of the spectators, 81; mode of expressing disapprobation or approval adopted by the audience—royal ladies always present at the sanguinary spectacles, 82; fights between wild beasts—eleven thousand pitted against men and against each other at the celebration of the triumph of Trajan—a battle between five Bestiarii and five lions, 83; insensibility to pain while in the clutches of carnivora, 85; Dr. Livingstone's experience of—the martyrdom of St. Ignatius, 85.

How the Lion is Hunted.—Hunting tactics of Europeans abroad superior to those of the natives, 87; the perilous business of lion hunting—Andersson's first lesson, 88; varieties of the Algerian lion—its enormous depredations among the flocks of the Arabs, 91; an Arab lion-trap—directions to the "solitary hunter" by Jules Gerard, 92; solitary hunting not to Arab taste—an army of Arabs to hunt a lion, 93; how they set about the business, 94; the Old Shekarry's lion duel at Natal, 95; Gordon Cumming's adventure with a lion, 96; Cumming's bout with a maneater who steals a waggoner from the fireside, 98; Dr. Livingstone's marvellous escape from a lion's jaws, 99; a lion-hunter saved through the sagacity of his elephant, 101; how Piet punched the head of a lion—decrease of lions within the last century—Steedman's account of the "tree huts" on the shores of the Moriqua, 104; the

maneless lion, 105; memoir of Jules Gerard, 106.

THE PUMA.

Its numerous aliases—where found—height, length, structure, and colour of, 107; scene of its hunting exploits—its bloodthirsty ravages among the flocks of the squatters—puma stories—a remarkable one related by Josh Springett, a Katskill hunter, 108; Sir Francis Head testifies to the cowardice of the puma, 111; the story of Maldonata and her puma champion, 113.

THE GORILLA.

Tyson's account of the Pigmy, "Homo Sylvestris"—Hanno, the Carthaginian captain—his discovery of "wild men" while circumnavigating the African continent, 115; Professor Owen's opinion of the account of Hanno—contradicted by the modern explorer, Du Chaillu, 116; Battel's exaggerated account of the gorilla, 117; Cuvier denies the existence of such an animal—reception by Owen of two skulls from the Gaboon—the existence of the giant ape set beyond a doubt, 118.

STRUCTURE OF THE GORILLA. - The gorilla an ugly progenitor—the notion not confined to the ignorant and unlearned, 120; Owen and Du Chaillu's opinions thereon—height of the gorilla, 121; its hide—its habit of resting at night against a tree—the eyes of the gorilla—its mouth —its formidable fangs—its powerful neck and chest—its peculiar track when running on all-fours, 122; structure of its hands and feet, 123; remarkable resemblance of the gorilla skeleton to that of man-smallness of its brain, 124; dentition of man totally distinct from that of the ape family —the low degree of the gorilla's cranial capacity, 125; the absurdity of the idea of the transformation of the ape into man —the author of "Conjectura Cabbalistica" discourseth thereupon, 126.

Its Habitat.—Old tales concerning the habits of the gorilla, 127; dispelled by Du Chaillu—food of the gorilla—a strict vegetarian—its nomadic life partly attributable to the quantity of food consumed by it—ascends trees only for the purpose of gathering their produce, 128; enormous strength of its jaws—young ones cradled high in the branches of trees to preserve them from wild beasts—the gorilla not a polygamist—pugnacious character of the male—the pedestrian power of the gorilla, 129; instinctive ferocity of the animal—Du Chaillu's account of the capture of a baby gorilla, 130; its untameable nature

—Du Chaillu tries his hand on a second gorilla, 133.

How it is Hunted.—Difficulties attached to gorilla hunting, 135; a steady hand and a brave heart the first essentials—how the hunter should act, and how the gorilla will, 136; fondness of the natives for gorilla meat—its brains used as charms by the savage—Du Chaillu's account of his first gorilla, 137; curious weakness of the gorilla's hind legs—fatal gorilla hunt, 140.

THE NSHIEGO-MBOUVÉ.

Its habit of building in the branches of trees—a neat building, 142; its solitary mode of living—its diet—singular feature of its domestic economy—its structure—in what regions it is found—inhabits the same woods with the gorilla—how the nshiego-mbouvé retires to rest at night, 143; Du Chaillu's account of the capture of a baby of this species, 144; African explorations of Du Chaillu, 147.

THE RHINOCEROS.

ITS STRUCTURE. —Varieties of — their characteristics—effects of a fatal shot on the rhinoceros, 150; erroneous notions concerning the impenetrability of its hide—to what the error may probably be ascribed how the natives prepare the hides to be manufactured into various articles of common use—species of rhinoceros found in Africa—the square-nosed white rhinoceros, its dimensions, 152; smallness of its eyes -the acuteness of its hearing and smell its wonderful swiftness—the evidence of certain African hunters thereupon—another species of white rhinoceros—its similarity to the foregoing—chiefly distinguished by a difference in the shape and size of the horns—superstitions concerning the horn of the rhinoceros, 152; how they may have arisen—value of rhinoceros horn—purposes to which it is applied—its colour, 153; made into drinking-vessels by the Turkswonderful properties of-shavings of rhinoceros horn a cure for convulsions and spasms—goblets made thereof for the detection of poison—testimony of most respectable witnesses concerning, 154.

Its Habitat.—Birth of rhinoceros—not an elegant baby—slow growth of its horn—affection of for its young—reciprocal attachment of calf, 155; singular instance of—helplessness of young rhinoceros—worried by wild dogs and hyenas, 156; the rhinoceros not a voracious feeder—quantity of food consumed by one kept at the Zoological Gardens—more food required by the white than the black species

—a large supply of water essential to its existence—the fountains visited once at least in twenty-four hours, 157; how the hunters take advantage of this habit mildness of the white rhinoceros—the excellence of its flesh—ferocity of the black rhinoceros—its diet, 158; flesh disdained by the "nigger"—calf-meat not disagreeable, 159; story of a ferocious keitloa—paying toll—the lion unwilling to cross the path of the black rhinoceros - the elephant equally cautious—fight between bull elephant and black rhinoceros—defeat of the former—family ties disregarded—Mr. Andersson's description of a rhinoceros fightfour of them engaged—Buphaga Africana —its services to the rhinoceros—a terrible nuisance to the hunter, 161; a case in point, 162; Mr. Oswell's terrible tussle with a rhinoceros, 163; the Indian rhinoceros compared with that of Africa, 164; the Exeter Change rhinoceros—a shocking toper, 165; the Javanese rhinoceros, 166.

How It is Hunted.—How the Bechuana prefers to meet grim Borelé, 167; opinions of European sportsmen on the use of poisoned arrows in hunting the rhinoceros—smallness of the brain of—stalking a white rhinoceros—a black rhinoceros attacks Mr. Andersson to within an inch of his life, 168; tenacity of life in the rhinoceros—Mr. Galton's battle with one at Tonnobis, 171; a horse and rider tossed in the air—the Sumatran rhinoceros, 172; memoir of Charles John Andersson, 173.

THE TIGER.

ITS STRUCTURE.—Similarity in structure of all the cat tribe—disposition of the tiger—its cunning and agility, 175; its handsome appearance—difficulty of discerning the brute from the verdure in which it lurks—its ability to condense its size—strength of the tiger—able to bear off a full-grown buffalo—instance of, 176.

Its Habitat.—Where found—purely of Asiatic breed—usual number of "kittens" at a birth—dimensions of a young tiger—duration of life, 177; affection of the tigress for her cubs denied by some writers—reasons on which their opinions are founded—inquisitiveness an important law in tiger nature—evidence in defence of the tiger's affection for its young—story of Captain Williamson—hunting tactics of the tiger, 178; moralising of a she-tiger—unparalleled devotion to its progeny—"it is as easy to coax a tiger kitten from its mother, as money from a miser's coffers"—remarkable instance of, 179; the buffalo a match for "tigris regalis"—union is strength—

fear of oxen on the approach of a tiger, 181; how the latter strikes its prey—how the carcase is devoured—tiger scraps consumed by vultures and jackals—description of the feasting thereon, by Lieutenant Rice—the tiger a good swimmer, 182; the tiger a pirate—its favourite haunts—the biter bit—statistics of wild beasts destroyed in India during 1859 and 1860, 183.

HOW IT IS TRAPPED AND HUNTED .-Various modes adopted by the herdsmen to trap the tiger—the bamboo scaffold—how it is built, mounted, and armed, 185; the poisoning "dodge"—terrible story of a poisoned tiger, 187; the "spring-bow" trap -how it is constructed—its mode of working, 188; another native trap—the bamboo cage—the "mouse-trap" principle—the plan employed by the natives of Oude to entrap the tiger, 189; the gara, or live bait—its precariousness—"man for dinner, goat for supper," 190; native superstitions dread of the tiger—a revengeful race of animals — the hecatomb of the terrible "man-eater"—the story of its depredations, and its final destruction by the "Old Shekarry," 191; a tiger-hunting adventure of Lieutenant Rice, 194; remarkable instance of the tiger's cunning—the use of turbans, 195; a sportsman robbed of his game—adventure of ship's captain—disturbing a family party—discretion the better part of valour, 196; an old storyevery rule liable to exceptions—the fatal tiger hunt of Mr. Munro, 197; tiger and buffalo fighting in Java—the pit, 198; description of by Mr. Melville, 199; tiger guards in Java, 200; the rifle preaches mercy to the savage-memoir of Lieutenant Rice, 203.

THE HIPPOPOTAMUS.

Its Structure.—Broderip's remarks concerning its amphibious character, 204; a traveller's opinion of its disposition—the enormous strength of its jaw—a boat's crew in jeopardy—biting a man in two—dimensions of the hippopotamus—its unsymmetrical proportions, 205; its formidable teeth—its ugly and terrible-looking mouth—its enormous stomach—the peculiar position and shape of its nostrils, 206; Professor Owen's remarks thereupon—the eyes of the hippopotamus—their adaptation to the element in which the animal lives—Broderip's remarks concerning them—Owen's investigations—the voice of the hippopotamus, 207; the "musical ear" of Behemoth, 208.

HABITAT OF THE HIPPOPOTAMUS.—The hippopotamus identical with the Behemoth

of Scripture—mention made of it in the Book of Job—anciently common in Europe and Asia—where it is now found—a shy and solitary animal, 209; the "home" of the hippopotamus—its weird and beautiful aspect—Livingstone's description of its haunts—the hippopotami at the Zoological Gardens—the amount of food consumed by the largest of them—depredations of the Nubian hippopotamus in the ricefields of the farmer, 210; Cumming's description of a colony of hippopotami on the banks of the Limpopo, 211; cautious proceedings of the hippopotamus before going on shore—Du Chaillu's discovery of a new purpose to which the tusks are applied—the stupidity of the hippopotamus negatived by the evidence of modern travellers—its keenness in scenting a trapprecautions taken by hippopotami on the discovery of the "spoor" of a man—its cunning in keeping out of sight—result of the discovery of man's "spoor" by hippopotami, 213.

HOW IT IS TRAPPED AND HUNTED .-The strength and courage of wild beasts as compared with reason—Behemoth over-matched by the naked Bayeye, 214; how the latter subdues the former—harpoon its length and shape—how it is made—how the "reed-raft" is prepared, 215; its advantages and disadvantages—how, with its aid, the savage hunts the hippopotamus, 216; another mode employed by the Bayeye—the "downfall," 218; the rifle in the hands of a brave hunter the most successful weapon—exploit of a celebrated hunter, 219; adventure of Mr. Cumming—a case for the Society for Preventing Cruelty to Animals, 221; abundance of hippopotami in the regions visited by Du Chaillu, 223; memoir of David Livingstone, 224.

THE LEOPARD.

HABITAT OF THE LEOPARD.—Dread of the animal by the natives—its tree-climbing propensities render it doubly dangerousits extreme cunning—its thieving tactics, 225; its mode of entrapping deer—how it pursues its prey—not particular in its diet -Mr. Andersson loses his favourite dog by the claws of a prowling leopard, 226; curious superstition of the Singhalese concerning the leopard—the black leopard of Ceylon—leopards allured by the smell arising from small-pox—its formidable influence with the natives of Central Africa -their rejoicings on the death of a leopard, 227; the *charms* secured on the occasion— Du Chaillu's description of a leopard hunt and its results, 228; the Singhalese mode of capturing the leopard—remarkable instance of man's dominion over wild beasts -Major Skinner and the leopard, 229; —similar instance, narrated by Captain Drayson, 230; the maned chetah, or hunting leopard—where found, 231; how it is trained to hunt deer—the opinion of an old Nimrod thereupon, 232; the genus, size, and habits of the hunting leopard, 233.

How IT IS HUNTED.—Hendrick's adventure with a leopard—the wounded hunter and his dead game, 235; Du Chaillu's introduction to a South African leopard, 237.

THE PANTHER.

ITS HABITAT.—Its courage and cunning size and colour of-its favourite resorts, 239; the sort of beast the panther is to hunt—the rifle only of any use—curious Arabian legend about the panther's first defeat—Gerard's experiences and opinion of the panther decidedly at variance with those of Mr. Blakesley, 241; an Arab panther trap—the "pariahs," or vagabond dogs of India-dog flesh much esteemed by the panther—Lieutenant Rice's evidence in support of—two great dogs carried off by the beast, 242.

How IT IS HUNTED.—The panther of India the most terrible—Captain Shakespeare's terrible fight with two, 244; its wonderful tenacity of life, 246; its extreme ferocity-" Where is the panther?" "He is eating me; don't you see!" 248; Messrs. Rice and Little's brush with a dangerous brute, 249; an old hunter's apology for hunting, 251; cold-bloodedness of the ruminantia, 251; Mr. Parry's evidence are represented as 252; dence respecting, 252.

THE JAGUAR.

The favourite haunts of the jaguar—its fondness for fish—Darwin's evidence there-upon, 253; the prey of the jaguar—its mode of capturing and killing it—a hungry jaguar an ugly customer—the unfortunate deaths of two padres belonging to the church of St. Fé—the jaguar at the Zoological Gardens—the story of its voyage to England, 254.

THE LYNX, 256.

THE BUFFALO.
ITS HABITAT.—The buffalo's respectable position in society—regions usually affected by it, 257; its mud-bath—trolling for fowls—the "buffalo" of North America—properly the bison—Catlin's opinion thereon, 258; the importance of the buffalo —the sole dependence of three hundred

thousand people—what the North American Indian does with the buffalo—its erratic wanderings—horror of "no buffalo meat"—steps taken by the Indians on the departure of the buffalo—the buffalo-dance, 259; wrong kind of "buffalo"—a blood-thirsty species, 260.

How it is Hunted.—Buffalo-hunting adventure of Captain Methuen, 262; the courage of the buffalo when brought to bay—a fight between a buffalo and three lions, 264; Textor erythrorhynchus—a parasite of the buffalo—how buffalo-hunting is conducted by the North American Indian, 265; the white wolf—a terrible enemy to the buffalo—its presence greatly dreaded by the latter animal—how it is taken advantage of by the Indian, 266; the mode of capturing buffalo in the snow employed by him, 267; story of a battle between a herd of wolves and a solitary buffalo, 267; conduct of the narrator on the occasion—Captain Drayson's story of a buffalo chase, 268; memoir of the Hon. Grantley F. Berkeley, 270.

THE WOLF.

Its Structure.—The wolf in Ancient Britain—roadside refuges for travellers—"Wolf-moneth," or wolf-month—the ancient office of wolf-hunter-general—to whom first assigned—difference between the dog and wolf, 271; charms anciently supposed to attach to the wolf—pounded wolf's liver—wolf's-grease a potent charm against demons or other evil persons—wolf's snout—the teeth of the wolf a remedy against fatigue in horses—ancient cruelty to captured wolves, 272.

Its Habitat.—Birth of young wolves—treatment of by their mother—learning their business—young cubs inured to hardships—fondness of she-wolf for her progeny—the Indians allowed to handle her cubs, 273; superstitious reverence paid to it by the Hindoos—curious instance of the shewolf's fondness of showing her young—the extreme cunning of the wolf—a powerful opponent to reynard—its extraordinary tactics to escape—remarkable instance of, narrated by Captain Lyons—its fondness for pork, 274; its ferocity—the conduct of the one at the Zoological Gardens, 275.

How it is Trapped and Hunted.— Trap employed by the Esquimaux in capturing wolves—common mode of hunting the wolf, 276; wolf-hunting adventure—"more pork!"—a good "dodge"—a terrible wolf story, 277; adventure of Mr. Atkinson, 280; close of the prosecutionevidence in defence of the wolf—the wolf-boy of Bondee, 281; adoption of a child by a wolf, 282; the romance explained—Mr. Jesse's story of a cat suckling a mouse—the ancient myth concerning the founders of Rome not at all improbable, 283; the American wolf—its harmless nature when trapped, 284.

THE BOAR.

A celebrated hunter's opinion of the wild boar—little of its ferocity retained by its domestic relation, 285; the wild boar in Ancient Britain—a curious legend—form of the boar, 286.

How it is Hunted.—Where found, 287; its tremendous strength and courage —bayed by four panthers—boar-hunting in India—how it is managed—different spears used—the secret of "riding" a wild-hog—a well-trained horse essential to boar-hunting, 288; Captain Shakespeare's horse, 289; how the hunter should act, 290; a boar-hunting adventure, 291; the boar of Equatorial Africa, 293; its strength and activity—the wild boar of South Africa—Mr. Andersson's account of—the wild hog of Algeria—varieties of—mode of hunting it, 293; a prey to lions, 295.

THE BEAR.

How the bear was treated by our ancestors—bear-baiting at Paris Gardens, 296; Mr. Crowley, the poet, gravely reproves the English for laying out their halfpence to such an unlawful purpose—patent granted in the reign of James VI. for bear-baiting—held by Edward Alleyn of Dulwich College celebrity—the patent taken away in 1642—behaviour of the patentee on the occasion—its revival—description of the "Bergiardin by Sodark" by Mons. Torevier—its final destruction, 297; respect paid to the bear by savage hunters—behaviour of the Laps when hunting the bear—an appeal to the bear's generosity—talisman employed by the Singhalese to protect them from bears—its efficacy put to the test—the Moorman and the bear, 298.

Its Structure.—The teeth of the bear—different from the teeth of the Plantigrade—its diet—the feet of the bear—its claws—their singular structure—the enormous strength of the bear—mobility of its hind limbs, 300; the polar bear—its gigantic strength—how it attacks and slays the walrus—the brown bear and its progenitor—Mr. Lamont's remarks thereon, 301; arguments against the theory, 302.

ITS HABITAT.—The grizzly bear: the largest of his tribe—its dimensions and

weight—carrying off and burying a bison, 303; curious propensity of the grizzly bear to bury the bodies of dead animals—taken advantage of by the hunters—the wolves refuse to touch the bodies of animals buried by the grizzly bear—the latter not a hugger, 304; its peculiar-shaped claws—scalping a hunter—the Singhalese bear: a decent fellow if left alone—a terrible one to fight—the Indian bear not averse to the same when necessary—Mr. Lamont's account of the capture of two polar bear cubs—affection of the dam, 305; cannibal behaviour of the cubs—they devour their mother, 306.

How IT IS HUNTED.—Utter disregard of the grizzly bear for man—often the assailant—its perseverance in tracking the hunter—a long run for life—its tenacity of life—mode of attacking the grizzly bear in its den, 308; dangers attending it—remarkable instances. markable instance of, 309; a determined struggle for life—Gerstäcker's adventure with a bear—its slaughter of a man and four dogs, 310; narrow escape of Gerstäcker -alone with his dead friend and surrounded by wolves, 311; the brown bear in Sweden —its extensive depredations—the bear-hunt announced from the pulpit—primitive character of the hunt—story of Jan Sven-son and the brown bear, 312; the "Old Shekarry's" account of a black bear hunt in India—desperate character of the fight, 314; scarcity of the polar bear as compared with other animals—few shot by Mr. Lamontenormous one slain by him—description of its chase and defeat, 316; Mr. Lamont's cargo of Arctic curiosities—refused by the English societies—purchased by the Directeur of the Jardin des Plantes—keeping them warm, 317.

THE OSTRICH.

Its Structure.—The ostrich a connecting link between the families of aves and mammalia—its representatives—the Avestruz Petise—one at the Zoological Museum—the story of its capture and preservation, 318; Dobrirhoffez' "account of the Abipoues"—the African ostrich—its height and weight—breastbone of the ostrich—its legs—the enormous strength of its foot—its keenness of vision—colour of the ostrich, 319; wonderful structure of its feathers—belief of the Arabians and Persians concerning the ostrich—gruffness of its voice—thickness of its skin—made into shields by the ancients—formed into cuirasses by the Arabs, 320.

Its Habitat.—Its incubation—a jointstock affair—with unlimited liability, 321; evidence of Darwin with regard to the in-

cubation of the ostrich—eggs found outside the nest—reasons assigned for it by various travellers, 323; the argument not very substantial — Dr. Livingstone's remarks thereon—the good Doctor's mistake—probable reason for turning out the eggs—weight and nourishment of the ostrich's egg—compared with that of the common barn-door fowl, 323; an ostrich egg a tit-bit for three travellers—voracity of Andersson's servant—his opinion of the egg of the ostrich - Dr. Livingstone's opinion - the "stone in the egg"-remarks of Barrow and Thunberg—explained by Livingstone -the vital power of the egg, 324; intelligence of the ostrich—variety of opinions concerning—an authority's remarks on its stupidity-how the natives procure its eggs, 325; the shells made into water-vessels by the bushmen—remarkable endurance of thirst by the latter, 326; domesticated ostriches—contradictions of their species ostrich chicks-conduct of the cock-bird towards them-their colour and general appearance—the little utility of domesticating ostriches—enemies of, 327; curious mode of breaking its eggs by the vulture—the bushman's "dodge" of carrying ostricheggs—the potent qualities of powdered egg-shell—vulgar belief concerning the diet of the ostrich—ancient delusion—"Boke of Philip Sparrow," 328; probable mistake of the author in question—the ostrich's obtuseness of taste—food of the bird in a wild state—voracity of a domesticated ostrich—the ostrich of Portsmouth—story of the ostrich and the mariners' knives, 329; probably fictitious—the flesh of the ostrich—regarded as unclean by the Jews —ostrich-flesh very popular with the savage tribes—a "dainty dish" in ancient Rome - Heliogabalus and ostrich-brains — the speed of the ostrich - remarkable endurance of -measurement of its stride, 330; the ostrich an aquatic bird, 331.

How it is Hunted for its Plumage.

—The feathers of the ostrich—where they are obtained—the ostrich only parts with his plumage with his life—somewhat chary of the latter—modern hunting-tactics no help to the ostrich-market—the ostrich dangerous game to hunt on horseback—King Fashion—the Damara and Bechuana his humble slaves—twelve guineas per pound for plumage—the "feather season," 332; how the savage sets about his business—the poisonous N'gwa—its terrible effects—care observed by the savage in using it—his hunting tactics—when the feathers should be plucked—another mode of hunting the ostrich—disguised in its

skin—Mr. Moffat's description of one of these hunts, 333; how the Arabs hunt the ostrich on horseback—running the game down, 334; hunted on foot—snaring the ostrich—how it is commonly hunted by European sportsmen—not sufficient danger to render it acceptable to the latter, 335; Mr. Andersson's account of an ostrich chase—the maternal solicitude of the ostrich for its young, 336.

THE REINDEER.

Its Structure.—Weight of the reindeer—its hair—its horns—difference between those of the male and female—their annual reproduction—their connexion with the reproductive system—curious rapidity of their growth—horns of the wapiti—the Irish elk—Rymer Jones on the relation of the bones of the neck to the horns, 337.

Its Habitat.—Value of the reindeer to the Lap—its skin used as clothing—how to make a reindeer-skin suit in two minutes, 339; reindeer the Lap's only wealth—how the small proprietor manages—the Barings and Rothschilds of Lapland society, 340; a Lap dinner-party—reindeer-blood pudding—how the milk is preserved, 341; speed of the reindeer—how it is harnessed to the sledge—occasional obstinacy of the horned steed—tactics of the coachman in such an emergency—where the reindeer is found, 342; its sudden acquisition of fat—nutritious qualities of the moss on which it feeds—hunting it a dull sport—its innocence of alarm—remarkable instance of its tenacity of life, 344.

THE ORYX.

Its resemblance to the chamois—size of the male—its anomalous character—the horns—their terrible sharpness—a match for the lion—Gordon Cumming's adventure with an oryx—curious appearance of its horns at a side view, 345; belief in the unicorn possibly attributable to—known in England in the 15th century—the gemsbok on the coat-of-arms of the Duke of Bedford—the female oryx—gregarious in its habits—the young—its food—does the oryx exist without water?—Cumming versus Andersson, 346; speed of the oryx—Mr. Cumming's adventure with one, 348.

THE CHAMOIS.

Its genus—its habits and structure more nearly allied to the antelopes than the goats, 351; size and weight of the chamois—its colour changeable—the marvellous construction of its skull, 352; absurd belief concerning—how the chamois uses its horns in battle—difference between those of the male and the female—its

keenness of sight and scent—remarks of chamois hunters concerning—its clumsy walk—how it is occasioned, 353; its swiftness and agility—romance and mystery attached to the chamois—the author of "A New and Perfect Art of Venery," and his explanation thereof, 354; their manner of moving on the snow — the mysteries of chamois hunting, 355; food of the chamois — curious consequence of the resinous and fibrous nature of its diet—the young of the chamois—the period of gestation—the patriarchal bucks—difficulty of hunting them—a terrible trap for the hunter, 356; the scented bladder found near the horns of the bucks—its remarkable power of retaining its odour-at what season it is found -a good period for the hunter-how to trap the bucks by imitating the call of the female—another mode of trapping them its inquisitiveness—how the hunter acts with the wounded chamois—peculiarity of its skin-difficulties of chamois chase, 357; Miss Crewdner's poem on the chamois, 358; the awe with which the chamois hunter is regarded by the valley dwellers his dangerous calling—his baggage and accoutrements, 359; out of the world—always at the verge of death and the grave—the little "accidents" of life—description of a chamois hunter—out of his element, 360;
—little romance in the chamois hunter's life — learning his business — shooting-grounds at Munich—the "fixed target" and the "running target"—their mode of working-the prizes-how they are distributed, 361; Charles Boner, the famous chamois hunter—his account of an adventure on the Krammets Berg, 362.

THE MOOSE.—The largest of the deer family—its dimensions and weight—its coat—its mane—its horns—its extreme jealousy, 366; its food, and how it gathers it—the moose "yard," 367; caught in its own trap—a first-rate swimmer—the life and melancholy end of a domesticated moose, 368; story of another tame moose—the various methods of taking moose, 369; snaring—chasing with dogs, 370; "calling"—the moose that came almost before it was called, 371; excitement of moose hunting—the Indians the best "callers"—the "caller's" pay, and how he conducts his business, 372; "creeping" moose—its rough character—"running"—the sort of shoes worn to "run" in—the moose run down, 373; Lieutenant Hardy's moose-calling adventure, 374.

THE SAMBUR.—Its wariness—description of—its pugnacity—its horns, 378; how the baby sambur is made to lie quiet

by its mamma—the fleet sambur subdued by "a cord, a stone, and a thorn," 379; effect of the terrible trap—a sambur hunt by the Old Shekarry, 380.

THE ELAND.—Where found—its dimensions—its flesh superior to our vaunted roast beef—an eland herd "like a cattle-show"—dropping dead of fat, 383; a prey to the "stalking" savage, the hyena, and the "honden," or wild dog—habits and manners of the wild honden—how they hunt their prey—their fearlessness of man, 384—speed of the eland—its tremendous leaps—Captain Drayson's eland-hunting exploit, 385.

THE SABLE ANTELOPE.—The first living specimen received in Europe—handsome appearance of adult buck—its peculiar horns, 388—one shot by Sir Cornwallis Harris—presented to the British Museum—the animal unknown even to the natives, 389.

THE KANGAROO. .

Its Structure.—The young born in an embryotic state—the gradual development of the wondrous little creature recounted by Scaglier, 390; Professor Owen's experiments on—the new-born kangaroo no longer than an earth-worm—how it is suckled, 391.

ITS HABITAT. — Small intelligence of marsupiated animals, 392; where the kangaroo is found—use of its pouch—its flesh—a Bushman's recipe for kangaroo "steamer," 393.

How it is Hunter.—With the "boomerang"—by stalking—the colonist's mode, 393; an exciting adventure, 394.

THE GIRAFFE.

Its Structure.—Incredible accounts of by travellers of olden times, 396; fact stranger than fiction—the giraffe's wonderful organs of sight, taste, and smell—its eccentric walk—its mechanical run—large herds—relative size of male and female, 398.

Its Habitat.—Where the first giraffes seen in England were captured, 399; its pasturage—not distinguishable at a distance—why?—Messrs. Andersson and Cumming's evidence concerning—perfume emitted by the giraffe—its confiding disposition, 400.

How it is Hunted.—Sir W. Harris's giraffe adventure in the Basquani country, 402; reproachful gaze of dying giraffe—its effect on a renowned and by no means sensitive hunter, 404.

THE HORSE.

Its Structure.—Specially formed for man's assistance—structure of its foot—action of its legs, 406; stride of *Eclipse*, the celebrated racer, 407; working action of the horse's joints—the "frog," 408; teeth of the horse, 409.

HABITAT OF THE WILD HORSE.—The savage steed of the pampas compared with our familiar cab-drawing quadruped, 410; diversity of opinion as to the existence of the wild horse—Mr. Bell's argument— Mr. Martin's, 411; sacred horses of the ancient Persians—curious ceremony at the grave of a Scythian king, 412; sacrifice of the horse in India—honour paid him by the Emperor C. Caligula—Bruce, and Fasil, the Abyssinian chief, 413; value of the horse in Arabia—how one animal is parcelled out to several owners-414; the Arab's horse before his wife—description of Arab steed, 415; how it is bred and petted by its master—its wondrous speed, 416; horse-stealing not a crime in Arabia the story of Jabal and his marvellous mare, 417; wild horses on the shores of the Don—the "tarpan" and "muzin" their domestic economy, 418; horse and wolf fights-the horse-fields of the South American prairies, 419; twenty thousand wild horses at threepence each—the wild horse in the thirsty season—terrible grandeur of a "stampedo," 420; how the Indian uses his lasso—the Guacho horsemen and the cannon—the Guachos deformed by constant riding, 421; the pampas Indian and his troop of war horses, 422.

THE WILD ASS.—The "khur," the "dziggetai," the "yo-to-tze," and the "kiang," 423; the wild and domestic ass—speed of wild ass—Sir Ker Porter's chase of—degeneration of in a domestic condition—origin of the domestic ass, 424; one foal at a birth—age at which it attains its prime—Brettel's account of the ass of Carisbrook Castle—the zebra—the quagga, 425; courage of the quagga—human-like voice of the zebra, 426.

LIST OF PORTRAITS

OF FAMOUS SPORTSMEN AND TRAVELLERS.

ENGRAVED FROM DRAWINGS BY W. G. MILLER, FROM PHOTOGRAPHS PRINCIPALLY TAKEN EXPRESSLY FOR THIS WORK.

	PAGE
SIR EMERSON TENNENT	From a photograph by Mayall 35
JULES GERARD	From a photograph 87
PAUL B. DU CHAILLU	From a photograph by T. R. Williams 135
CHARLES JOHN ANDERSSON	From a photograph 167
CAPTAIN W. RICE	From a photograph by J. Moore 185
DAVID LIVINGSTONE, LL.D	From a photograph 214
HON. GRANTLEY F. BERKELEY	From a photograph 262
CAPTAIN SHAKESPEARE	From a photograph by Mayall 287

LIST OF COLOURED ILLUSTRATIONS.

FROM WATER-COLOUR DRAWINGS BY J. B. ZWECKER, HARRISON WEIR, AND HARDEN MELVILLE. 3

ENGRAVED AND PRINTED BY W. DICKES.

					-				F	AGE
THE	OLD SHEKARRY AND THE ELEPHANT									1
THE	LION.—Assailed by death in three shapes	1								97
LIEU	TENANT RICE AND THE TIGER									194
THE	BUFFALO.—A Miraculous Escape							4		263
THE	WOLF.—The Noble Sacrifice									277
THE	BOAR.—Conquered at last									291
THE	BEAR.—Fangs and Talons v . Blade and Bullets .									314
THE	CHAMOIS.—The Chamois Hunter's Hunting-ground			2						353
THE	OSTRICH.—Sailing under False Colours		•							398
THE	HORSE-The First Moment of Bondage									418

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."

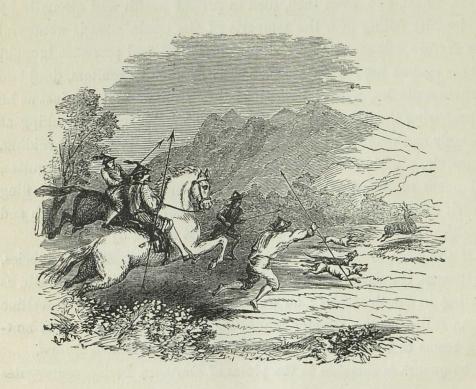
The ass's time for going with young is about eleven months, and seldom more than one foal is produced at a birth. At the age of four years the animal is in its prime, and its duration of life ranges from twenty-five to forty years. Instances, however, are recorded of the ass living over fifty years. 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 sultry 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, however, seems to be all that is known of the last-mentioned animal.

The quagga is common to the plains of Southern Africa, congregates

in great companies, and mixes freely with gnus and ostriches—indeed, 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. Anderson 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.



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 horse-stealing 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 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 WILDERNESS.

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, "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 nearer, 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. As 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 horses 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 throwing 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 invariably 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! flies 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 moment 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 him for. The Indians of the prairies and pampas, whose forefathers fled 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 confess; 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 fresh 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 or 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 *kiang*.

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 him 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, telling 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 rarity, 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

LIST OF	W	001)-C	UT	S.								3	xxi
													p	AGE
THE OLD SHEKARRY AND THE MAN-	TAT	ER.												193
FIGHT WITH TIGER AND BUFFALOES		1110					•							
JAVANESE TIGER GUARD														
LOOKING-GLASS TRAP														
SKELETON OF HIPPOPOTAMUS														
SKULL OF DITTO														
BEHEMOTH AT THE BATH														209
PLUNDERING THE RICE FIELDS														211
A STARTLING IMPRESSION														213
HARPOON														215
THE "DOWNFALL"							•			•				219
SPOOR OF HIPPOPOTAMUS				•							•	•		223
GROUP OF LEOPARDS				•				•			•	•		225
AFRICAN LEOPARD				•				•				•		229
MANED CHEETAH								•	•	•	•	•		231
MANELESS DITTO				•						•				233
				•				*	•					234
MOROCCO LEOPARD							•	•		•				
AN AWKWARD PREDICAMENT														236
ASIATIC LEOPARD														
MALE AND FEMALE PANTHER														
SPOOR OF DITTO														
TRAP FOR DITTO														
UNDER THE BRUTE'S CLAWS														
THE JAGUAR ON THE LOOK-OUT														
THE LYNX														
BUFFALO AND CALF														
SKELETON OF BUFFALO														
TEXTOR ERYTHRORHYNCHUS														
BUFFALO SPOOR														
SKELETON OF WOLF														
THE WOLF AT HOME														
A JOURNEY BY MOONLIGHT														
FOOTPRINTS OF THE WOLF														
THE BOAR—PARENTS AND LITTER OF														
HUNTING THE BOAR														
AT THE DEATH														293
SKELETON OF BOAR														295
THE POLAR BEAR														296
SKELETON OF BEAR														300
OLD BEARS AND CUBS														303
SPOOR OF THE POLAR BEAR														307
BLACK BEAR														308
GERSTÄCKER'S TERRIBLE BEAR FIGE														
SKELETON OF OSTRICH														
SPOOR OF DITTO														321
GROUP OF OSTRICHES														331
SKELETON OF REINDEER														
GROUP OF DITTO														
SPOOR OF DITTO														
THE DWELLING-PLACE OF THE CHAM														
FALLOW DEER														
ROEBUCK														382

	٠	
XX	1	1

LIST OF WOOD-CUTS.

												I	AGE
BULL ELAND													383
COW ELAND													387
SABLE ANTELOPE													388
SKELETON OF KANGAROO.													
THE KANGAROO AT HOME													
SPOOR OF DITTO													
SKELETON OF GIRAFFE													
THE GIRAFFE IN HIS NATIV													
SPOOR OF DITTO													
A HERD OF GIRAFFES													
SKELETON OF THE HORSE													
SPOOR OF ZEBRA													
A ZEBRA FAMILY													
A HORSE-HUNT IN THE WILI													
THE WIE	נער	TOTA	CICIE					•					419

List of Maps,

SHOWING THE HABITATS OF ANIMALS AND PLANTS ALL OVER THE WORLD.

AFRICA														1
ASIA														
NORTH AMERICA				.,										97
SOUTH AMERICA														145
AUSTRALASIA														
EUROPE														

List of Wood-Cuts.

FROM DESIGNS BY HARDEN MELVILLE AND WILLIAM HARVEY.

ENGRAVED BY H. NEWSOM WOODS.

	PAGE
GROUP OF EXTINCT ANIMALS—PALEOTHERION—MAMMOTH-LINOTHERION—	
MASTODON	1
MILODON	1
SCHUMACHOFF'S DISCOVERY	4
SKELETON OF MAMMOTH	7
SKELETON OF ELEPHANT	8
ELEPHANTS DESCENDING A HILL	9
SECTION OF ELEPHANT'S TRUNK	11
DITTO DITTO	12
CONVEYING FOOD TO THE MOUTH	13
GRASPING A SMALL SUBSTANCE ON THE GROUND	13
TEETH OF ELEPHANTS—ASIATIC AND AFRICAN	15
SKULL OF DITTO DITTO	16
THE ELEPHANT IN HIS NATIVE HOME	17
MODE OF SUCKLING CALF	24
GROUP OF ELEPHANTS AT DRINKING PLACE	29
ANCIENT ELEPHANT OF WAR	31
HOW THE ELEPHANT BATHES	34
WHITE ELEPHANT	41
HOW THE HOWDAH IS CARRIED	43
PLAN OF CORRAL WITH SECTION OF FENCE	44
DRIVEN INTO THE CORRAL	45
THE CAPTIVES AND THEIR TREACHEROUS BRETHREN	47
THE INGENIOUS SIRRIBEDI	48
"HENDOO"—THE WEAPON USED TO GOVERN THE ELEPHANT	50
HOW A RIVER IS CROSSED	51
ELEPHANT IN KEDDAH OR CORRAL	52
A NOVEL UMBRELLA	56
HOW TO MOUNT ELEPHANT-BACK	64
ASTATIC TION	65

LIST OF WOOD-CUTS.

	PAG	E
THE LION'S SKELETON		
PAW AND CLAW OF		
PORTION OF TONGUE OF		
DITTO MAGNIFIED		8
SECTION OF TOOTH OF		
SPINE IN THE TAIL OF		0
SKULL OF		1
THE LION AND HIS FAMILY		2
BATTLE BETWEEN TWO LIONS		5
A LION IN HIS OLD AGE		
FOOTPRINTS OF LION		3
THE COLOSSEUM		
BATTLE BETWEEN GLADIATORS AND WILD BEASTS		
MARTYRDOM OF ST. IGNATIUS	. 8	5
AN ARAB LION PIT	. 9	2
THE FATE OF HENDRICK	. 9	8
A FRIEND IN NEED		
HUTS BUILT IN TREES BEYOND THE REACH OF LIONS		
MANELESS LION OF GUZERAT	. 10	5
A LAIR OF PUMAS		831
MALDONATA AND HER PUMA CHAMPION	. 11	3
HANNO APPROACHING THE ISLAND OF WILD MEN		
SKELETON OF MAN AND GORILLA	. 12	0
FOOTMARKS OF THE GORILLA	. 12	3
SKULLS OF CAUCASIAN, NEGRO, GORILLA, AND CHIMPANZEE	. 12	5
THE INFANT GORILLA AND ITS PARENTS	. 12	7
A YOUNG GORILLA MADE PRISONER	. 13	1
DU CHAILLU'S FIRST ENCOUNTER WITH GORILLA	. 13	8
DEATH OF DITTO		
AT THE MERCY OF A MAN-APE		
NSHIEGO-MBOUVÉ AND YOUNG	. 14	5
SKELETON OF RHINOCEROS		
HORNS OF DITTO-INDIAN UNICORNIS-KEITLOA-BICORNIS-SIMUS-JAV	E-	
NUS-SUMATRIENSIS-OSWELLII	. 15	3
BLACK RHINOCEROS (KEITLOA)		
A MOTHERLESS RHINOCEROS		
WHITE RHINOCEROSES APPROACHING HUNTERS' SHOOTING SCREEN	. 15	57
THE WAGGON ATTACKED		59
BATTLE BETWEEN FOUR RHINOCEROSES	. 16	31
BUPHAGA AFRICANA	. 16	32
INDIAN RHINOCEROS	. 16	34
JAVANESE DITTO	. 16	36
"I SCRAMBLED OUT FROM BETWEEN HER HIND LEGS"	. 16	59
SUMATRAN RHINOCEROS	. 17	73
SPOOR OF DITTO	. 17	74
TIGERS AT HOME	. 17	75
TIGER AND MUNTJAK DEER	. 17	77
A TIGER MOTHER	. 18	30
UNION IS STRENGTH		31
FOOTPRINTS OF THE TIGER		34
THE TUG OF WAR		37
MAN FOR DINNER, GOAT FOR SUPPER		00

BEETON'S CHRISTMAS ANNUAL

(SECOND SEASON).

Price One Shilling.

THE success of "BEETON'S CHRISTMAS ANNUAL" in its first season was so unequivocal, that the Publisher has prepared the present year's issue upon the same model. A mass of entertaining literature, in prose and verse, illustrated with many woodcuts-the work of pleasant writers and accomplished artists; a Drawing-room Burlesque, several acting Charades, a great number of original Conundrums, Enigmas, Charades, Rebuses, Hieroglyphics, Feats of Legerdemain; a Model of a Christmas Ship, showing how to build and man her, and fill her hold with, and hang upon her masts and from her yards, little Christmas presents for the young (this ship having been suggested as more appropriate for the amusement of English boys and girls than the German Christmas Tree); a handsome Illuminated Almanack for 1862-these will be some of the contents of this year's "CHRISTMAS ANNUAL." Moreover, the Key to the Conundrums, &c., which, last year, was published separately, will, this season, be comprised in the ANNUAL.

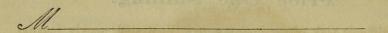
LONDON: S. O. BEETON, 248, STRAND, W.C.; and all booksellers in town and country.

FORM OF ORDER,

WHICH MAY BE SENT TO A BOOKSELLER, OR TO THE PUBLISHER,

248, STRAND,

LONDON, W.C.



Please send me a Copy of "BEETON'S CHRISTMAS ANNUAL" (Second Season), for which I inclose Postage Stamps, value One Shilling.

	-				
Full					
Name and &	to dealing of	o klasali s	ersteinio	nemish ed	
Address.	70 205 85			Control of the control	
					AND DE LA CO

** There being a few copies of "The Annual"—first season
—remaining, this can also be had, with the Key, by inclosing a
further number of Stamps, value One Shilling.

66 The QUEEN,"

An Illustrated Journal and Review

6d. WEEKLY.

The Christmas Number,

Consisting of 32 pages and a Supplemental Picture, "The Pet Kid," One Shilling.

THE difficult task of producing a new illustrated weekly journal has been performed, and the success of "THE QUEEN" is now a recognised fact. A number of novelties have been introduced in connexion with this journal, and these have naturally had their due effect upon the public, who are ever ready to appreciate originality and excellence. A good illustrated paper and a well-written journal was what the projector had in view when he commenced the publication of "THE QUEEN," and he has every reason to be satisfied with the result of the efforts of those who have been associated with him in carrying out the enterprise. It being specially desired that the Christmas Number should surpass, in all respects, anything which has been hitherto issued at this season, the greatest pains have been used to secure the assistance of the most able artists, engravers, and writers in the production of the large mass of literature and illustrations which it will comprise. Besides the Double Sheet, the CHRISTMAS NUMBER of "THE QUEEN" will include a magnificent Coloured Eidograph,

"The Pet Kid,"

a picture so wonderfully executed by a combination of art-printings that a keen critic could scarcely detect whether or no it was a real painting. This picture has been many months in preparation, and the number that can be produced of it is limited. What has been considered an adequate supply has been got ready; but once exhausted, it will not be possible to print any more. An early order will, therefore, be necessary in order to secure the CHRISTMAS NUMBER of "THE QUEEN," including "THE PET KID."

The CHRISTMAS NUMBER of "THE QUEEN" will be ready on Saturday, December 21st, 1861.

FORM OF ORDER,

WHICH MAY BE SENT TO A BOOKSELLER, OR TO THE PUBLISHER,

248, STRAND, LONDON, W.C.

M

Please send me the Christmas Number of "The QUEEN," including the Picture of "THE PET KID," for which I inclose Postage Stamps, value One Shilling.

Full Name and Address

"The QUEEN."

In consequence of the continued demand for the Photographs of Her Majesty and the Prince Consort, the Publisher of "The QUEEN" begs to inform the public that a further number of both have been prepared and mounted. Either Photograph can be had with any Number of the Journal, price 6d. Or both can be had for One Shilling.

S. O. BEETON'S PUBLICATIONS,

248, STRAND, LONDON, W.C.

November, 1861.

November, 1861.

66 THE QUEEN."—A New Illustrated Weekly Journal and Review, addressed to Englishwomen. It is of about the same size as the leading Illustrated Newspapers, and the newest type and finest paper are used in printing it. The Engravings, by the most skilful Artists, really illustrate the events of the day, and give point to whatever topics happen to engage the public mind. The News of the Week is narrated in good English; and an unusual number of Original Articles on Society, Literature, and Art appear in each number. Every day furnishes new texts on these subjects, and no opportunities of improving them are neglected. One of the most novel features of this Journal are its Weekly Supplements. They are very various, not to say extraordinary. Thus, with the first number, two Supplements were given, one of them being A Genuine Photograph of Her Majesty Queen Victoria, elegantly mounted on tinted card-paper, executed by Mr. Mayall, of Regent-street, a sufficient guarantee of its excellence. With No. 2 was given a Pocket-Handkerchief for working. With No. 3, a Splendid Plate of the Fashions, printed and painted in Paris. With No. 4, a Tiger-skin Pattern for Slipper in colours, and an additional Four Pages of Novelties in Needlework. In November will be given a Photograph of his Royal Highness the Prince Consort. Other interesting supplements—already in preparation in Paris, Brussels, Berlin, and Leipzig, as well as in London—will exhibit the most charming specimens of Fine-Art Printing ever seen in this country. this country.

NOTICE TO THE TRADE AND THE PUBLIC.—The Photograph of her Majesty may be had with any Number of " The QUEEN," it being taken instead of the current Supplement.

THE ENGLISHWOMAN'S DOMESTIC MAGAZINE, commenced May 1, 1860 (New Series), 6d. Monthly; and Half-Yearly Volumes, price 5s.—Besides Papers and 1860 (New Series), 6d. Monthly; and Half-Yearly Volumes, price 5s.—Besides Papers and Contributions by Authors of the highest repute, this Magazine contains, every Month—A STEEL-PLATE OF THE FASHIONS, specially engraved, printed, and painted by hand, in Paris, for this Magazine.—A BERLIN-WOOL-WORK PATTERN, prepared in Paris from original Berlin Drawings.—A Labor Stray Stray (and to 20 period) and to 20 period. —A LARGE SEPARATE SHEET (equal to 32 pages), containing a number of Original, Practical, and Beautiful Designs for all kinds of Ladies' Work, and of the exact size for working. The Literary Department has already comprised:—The Family Secret, by the Authors of "Under a Cloud." Illustrated by Julian Portch — Amongst the Americans. From the German of F. Gerstäcker—The Royal Families of Europe. With Portraits—Women Artists of all Countries—Curious Weddings and Remarkable Marriages—The Domestic History of England. By Maria S. Rye—The Paris Fashions. Edited by Mrs. Isabella Beeton—The Tales of Charles de Bernard, from the French—Tales of the Operas, and Biographies of Eminent Composers—Favourite Places in England and on the Continent—British Poets and English Laureates—The Book of the Month, &c. &c. Month, &c. &c.

Volumes I., II., and III., each containing Six Parts, are now ready, handsomely bound in

cloth, price 5s. each. Covers for binding—with title-page, preface, index, envelope for holding the Pattern Sheets and Berlin Patterns, and instructions for binding—price 1s.

The Englishwoman's Domestic Magazine (Old Series), in Eight Volumes, form, in themselves, a perfect little Household Library. The price of the set is £1; the purchaser receiving as a present a magnificent Steel Engraving, originally published at One Guinea. The price of a single Volume is 2s. 6d.

THE BOY'S OWN MAGAZINE. Commenced January 1, 1854. Published in Monthly Parts, price 2d.; Annual Volume, 3s.—This universal favourite contains all that a Boy should know, and nothing he should not. Amongst other interesting and informing contents may be mentioned, as having appeared in the current volume:—The Hostelry; or, Four Tales told in a Forest—The Wreck of the Pirate—Normans and Saxons; or, Tales of the Conquest—Reminiscences of a Raven—Broadsword and Single-Stick—Some of the Curiosities of English Money—Here a Sheer-Hulk—Remarkable Frosts—The Story of the Armada retold—Nature's Explorers—The Evil May-day—A Hero's Son—Life of Bernadotte—George Washington—How to Model a Cutter—Diggebe Lowe—Gutta Percha—Cricket—The Wild Man of the Woods—Gymnastics—The Lamentation for Celin: a Poem—How Fred and Tom went Fishing—William the Silent—The Warden of the Cinque Ports—The Stranded Bark and the Life-Boat—Conundrums, Charades—Stirring Songs, &c. This partial enumeration of the titles of some of the articles comprised in this Magazine sufficiently indicates the absorbing interest of its general contents, as well as its admirable adaptation for the reading of boys.

There are Six Volumes of the Boy's Own Magazine published, handsomely bound in cloth, price 3s. each, and containing the numbers from January to December. (The Seventh Volume will be ready early in December.) Covers for binding, price 9d.

MHE RISE OF THE DITCH REPUBLIC. By J. L. Mottey. In Seventh Magazine will be ready early in December.)

THE RISE OF THE DUTCH REPUBLIC. By J. L. Motley. In Seven Monthly Parts at 6d, and One Vol., handsomely bound in cloth, price 4s, 6d. Covers for Monthly Parts at 6d., and One Vol., handsomely bound in cloth, price 4s. 6d. Covers for binding, price 1s.

