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NATURAL HISTORY.

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A

NATURAL HISTORY

OF THE MOST REMARKABLE

QUADRUPEDES, BIRDS, FISHES, SERPENTS,
REPTILES AND INSECTS.

BY

MRS. MARY TRIMMER.

WITH 200 ENGRAVINGS.

ABRIDGED AND IMPROVED.

PARTICULARLY DESIGNED

FOR YOUTH IN THE UNITED STATES,

AND SUITED TO

THE USE OF SCHOOLS.

BOSTON:

S. G. SIMPKINS.

1845.

DISTRICT OF MASSACHUSETTS, to wit:

District Clerk's Office.

BE IT REMEMBERED, That on the twenty seventh day of May, A. D. 1829, in the fifty-third year of the Independence of the United States of America, S. G. Goodrich & Co., of the said district, have deposited in this office the title of a book, the right whereof they claim as proprietors, in the words following, *to wit* :

"A Natural History of the most remarkable Quadrupeds, Birds, Fishes, Serpents, Reptiles and Insects. By Mrs. Mary Trimmer. With 200 Engravings. Abridged and improved. Particularly designed for Youth in the United States, and suited to the Use of Schools."

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PREFACE.

THIS work may be regarded as an abridgment of Mrs. Trimmer's Natural History, though additions have been made from various sources, and a number of American animals introduced, not noticed in that work. An attempt has been made to present the subject in very clear, but necessarily brief terms, having it constantly in view to make it intelligible, instructive and useful to that class of persons for whom it is chiefly intended. The work is adapted not only to general use, but to reading and recitation in schools, and the opportunity which the subject offered for occasional reflections and remarks, tending to cultivate feelings of humanity towards domestic, as well as other animals, has not been neglected. On the whole, we trust the work may be considered an improvement upon those which have preceded it on the same subject.

EDITOR.

INTRODUCTION.

THE science of Natural History embraces a description of all the objects presented by the natural world. It is a study of great importance, and lays the foundation for the sciences of natural philosophy, chemistry, and physiology.

The objects of which it treats are divided into two very distinct classes of bodies, viz. *inorganic* and *organized*; the first embracing the atmosphere, the waters, and the earth; the last, plants and animals.

Zoology, or the Natural History of animals, is divided into five great sections.

1. QUADRUPEDS are first recommended to our notice from their manifest subserviency to our comforts and our wants. Besides this, their situations and dispositions give us more frequent opportunities of intercourse with them than with other classes of animals.

Birds soar aloft beyond our reach; fishes inhabit a different element from ours; reptiles instinctively shun our society, and insects escape our observation. But quadrupeds cannot easily avoid us, and many even seek our fellowship. Their circumstances bear some analogy to our own, and their sagacity and constancy of affection excite our observation and regard.

Quadrupeds have four legs, warm blood, and suckle their young. They may be divided generally into the *hoofed* kind and *clawed* kind.

The hoofed quadrupeds consist of the *horse* kind, the *cow* kind, the *sheep* kind, the *deer* kind, and the *hog* kind. They are all, with the exception of the hog, herbivorous, that is, they feed altogether upon vegetables. They contribute more to our necessities than all other animals, and, when properly domesticated, are uniformly kind and docile. They are also *gregarious*, associating in herds for mutual support and defence.

The clawed quadrupeds consist of the *cat* kind, the *dog* kind, the *weasel* kind, the *hedgehog* kind, the *amphibious* kinds, and the *winged* quadrupeds.

The cat kind includes the lion, tiger, leopard, &c. Like the cat, they all have strong claws, which they can sheathe or open at pleasure, and they all spring upon their prey. They are a cruel, untameable and ferocious race, and live in a solitary, unsocial manner. They are *carnivorous*, feeding entirely upon flesh.

The dog kind are all remarkable for their sagacity. They are gregarious in a wild state, often associating for purposes of rapine and plunder. They are *carnivorous*, although they can eat vegetable food. The wolf, fox, and jackal belong to this class.

The amphibious kinds are such as live a part of their time in water, as the beaver, otter, muskrat, &c. By winged quadrupeds are meant the bat tribe, which have all the great distinctions which mark the quadruped, their wings being only an extension of the skin. There

are some quadrupeds which are not included in the kinds named, and which seem to stand by themselves. The principal are the elephant, rhinoceros, hippopotamus, camelopard, camel, bear, &c.

2. BIRDS, of all the classes of animated creation, are peculiarly fitted to excite our astonishment and admiration. That an animal of great weight should be able to suspend itself, and to move with unparalleled rapidity in so thin a medium as the air, is truly wonderful; and not less so the admirable adaptation of each part to its intended purpose.

The feathers are furnished with an oily matter, that they may not absorb wet; the bones are very light, yet strong; the sight is piercing, and the shape of the bird the most proper for moving rapidly through the regions of the air. The muscles of the wings are of such magnitude that they constitute not less than one sixth of the whole body, and their strength is almost incredible. The flap of a swan's wing would break a man's leg.

They are divided into *land* birds and *water* birds. The land birds consist of the *rapacious* kind, the *pie* kind, the *poultry* kind, and the *sparrow* kind; the water birds of the *crane* kind and the *duck* kind, called *waders* and *swimmers*.

The rapacious birds bear a strong analogy to the carnivorous quadrupeds. They are, like them, armed with powerful weapons of destruction, and destroy and feed upon every thing weaker than themselves. They are also solitary and unsocial in their habits. The principal are the eagle, condor, vulture, &c.

The pie kind are known by their hoarse, chattering voices. Their bills are sharp-edged, and convex on the upper surface. To this class belong the raven, parrot, magpie, &c.

The poultry kind are well known and highly prized, furnishing the most delicate of animal food in great abundance. The most prized are the turkey and hen, also the peacock, partridge and quail.

The sparrow kind includes nearly all the smaller birds, as the nightingale, robin, swallow, and humming bird.

The waders have a roundish bill, fleshy tongue, and very long legs. The stork, heron, spoonbill, water hen and coot are examples. The swimmers have broad bills, covered with a membranous skin. Among this class are the swan, goose, duck, &c.

3. FISHES, in their construction, modes of life, and general design, are perhaps more astonishing than the inhabitants of either land or air. Most of them have the same external form, sharp at each end, and swelling in the middle, by which they are enabled to move with the greatest ease and swiftness. Their tails and fins are constructed so as to open and shut like a fan, and, by means of these machines, they are able to keep their bodies in a right position, and to move with almost any degree of speed.

Fish seem to have been the model from which men took the idea of the fastest sailing vessels, but the progress of a ship with a favourable wind is far inferior to that of a fish. A ship might sail at the rate of twelve miles

an hour, yet a large fish would soon overtake her, and swim around her as though she did not move.

Fishes in general are exceedingly voracious. Those of the larger kind pursue and destroy the smaller in great numbers. As a counterbalance to this, fish are incredibly prolific. Naturalists declare that the mackerel produces five hundred thousand eggs, the flounder about one million, and the cod above nine millions, in one season.

Fishes are divided by naturalists into the following orders; viz. *cetaceous*, *cartilaginous*, *spinous*, and *testaceous*.

Cetaceous fish bring forth their young alive, as the whale. Cartilaginous fish have soft bones, like cartilage, as the shark. Spinous fish have hard bones, with sharp spines or points, as the pike, roach, perch, &c. They constitute more than three fourths of the finny tribe. Testaceous fish have shells, as the oyster and clam. Those with soft shells, as the crab and lobster, are usually termed *crustaceous*.

4. SERPENTS and REPTILES. This class are amphibious, and live, many of them, equally well in water and upon land. Serpents have neither fins, ears, nor feet, and their jaws are dilatible and not articulated. The head joins immediately to the body, and the jaws are so expansible that they can swallow prey many times thicker than themselves. In general, their color is exceedingly varied and beautiful. About one sixth of the species are poisonous

Reptiles have legs, and flat, naked ears, devoid of auricles. The principal are the toad, frog, and lizard kinds. They are, with few exceptions, a harmless race of animals.

5. INSECTS derive their name from the circumstance of their bodies being separated in the middle. They have no heart or arteries, and breathe through pores arranged on their sides. Insects exist in countless multitudes, sizes and forms, and, though minute, display a formation perfectly adapted to their different modes of existence.

They are divided by Linnæus into seven orders. The 1st have their wings sheathed under a crustaceous covering, as the beetle and lady bird. The 2d have the upper wings half crustaceous and half membranaceous, as the locust. The 3d have their wings covered with fine scales, like powder or meal. This class includes butterflies and moths. The 4th have four membranaceous, transparent, naked wings, in which the membranes cross each other like net work, as in the dragon fly. The 5th have, in general, membranaceous wings, and are armed with stings, as the bee, wasp, ant. The 6th have two wings, each of which has a balance, as the house fly. The 7th are wingless, as the flea, spider, &c.

It is worthy of remark and gratitude, that, while man is excelled in strength, courage, and almost every physical excellence, by some one or other of the animal creation, he is yet able, aided by intellect, to subject to his own uses the very powers, which, properly directed, might greatly injure, if not destroy him.

NOTE TO TEACHERS.

After the pupil has read the book, it is recommended that he be required to answer the following questions.

What is said of the extent and importance of Natural History ?

How are the objects of which it treats divided ?

What are the inorganic substances ? what the organized ?

Into how many parts is the Natural History of animals divided ?

Why are quadrupeds first recommended to our notice ?

Into what two kinds may they be divided generally ?

What kinds are included in the hoofed quadrupeds ? What are their characters ?

What kinds are included in the clawed quadrupeds ? How are they distinguished ?

Why are birds calculated to excite our admiration ?

How are they divided ? What do the land birds consist of ? what the water birds ?

What is said of the rapacious birds ? of the pie kind ? of the poultry kind ? of the sparrow kind ?

How are the waders distinguished ? how the swimmers ?

Mention some of the distinguishing traits in fishes.

Into what kinds are they divided by naturalists ?

Describe the cetaceous fish ; the cartilaginous ; the spinous ; the testaceous.

Describe the serpent tribe. What portion are poisonous ?

Describe the reptile species. What are the principal ?

Why are insects so called ? How are they distinguished ?

How many orders are they divided into ? To what order belongs the beetle ? the locust ? the butterfly ? the dragon fly ? the bee ? the house fly ? the spider ?

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NATURAL HISTORY.

PART I.

QUADRUPEDS.

THE LION.

1. THE Lion is a native of Africa and the southern countries of Asia. He has universally been styled the king of beasts. He is bold and majestic in his character and appearance. His eyes are bright and fiery, and, when enraged, his look is terrible. His strength is exceedingly great. His roar is so loud,

Of what country is the Lion a native ?
What has the Lion been universally styled ?
How is he described ?

that, when reechoed among the mountains, it resembles distant thunder.

2. When the Lion is roused for battle, nothing can be more formidable. He then lashes his sides with his tail, and his mane rises and bristles about his head; his eyeballs glare; he shows his formidable teeth and tongue, and extends his long and sharp claws. In this condition, few animals, except the tiger, will venture singly to oppose him.

3. The Lion is a long-lived animal; having been known to live to the age of seventy. Notwithstanding he is so strong and fierce, he seldom attacks any one unless hungry or provoked. The negroes and Hottentots attack him with iron-headed spears and javelins, and, by means of their numbers, overpower him.

4. Nothing can be more dreadful to a traveller in the wilderness than to hear the Lion roar, and see him approaching. When Mungo Park was journeying in Africa, he was often frightened, when alone in the woods, by Lions, and sometimes was obliged to climb a tree, in order to escape from them.

5. At one time, as he rode past some bushes, he saw a very large Lion, lying with his head between his fore-paws, in a position to leap. He expected the Lion would spring upon him, and instantly tear him in pieces. But, not being hungry, the animal quietly suffered him to pass on.

6. The Lion can be tamed. The keepers of wild

What is said of the Lion when roused for battle?

What is said of the length of his life?

On what occasion does he attack people?

How do the Hottentots attack and overpower the Lion?

What is the situation of a traveller in the wilderness when he hears the Lion roar?

What is related of Mungo Park when journeying in Africa?

Can the Lion be tamed?

beasts often amuse themselves by playing with the Lion, and sometimes they punish him for disobedience. He quietly suffers this, although a single stroke of his paw would kill the strongest man.

7. The following example, among many which have been related, is strikingly illustrative of the Lion's generosity, though there may be some doubt of its exact truth. Androcles, a Roman slave, in consequence of ill-treatment from his master, the pro-consul of Africa, fled into a desert, where, hungry and fatigued, he entered a cave to rest himself.

8. Androcles had not been long in this situation before a very large Lion entered the cave, and approached him. Seeing no way of escape, he was exceedingly terrified, and expected nothing less than instant death.

9. The Lion advanced, uttering a moaning sound, as if he asked assistance, and extended to the slave a bloody foot. Androcles perceived that it was pierced with a thorn, and with a trembling hand he drew it out. The Lion, finding his pain allayed, caressed his benefactor, and slept beside him.

10. When the Lion went out, he brought back a portion of the prey which he had taken, and delivered it to Androcles. Thus they became perfectly familiar, partaking together of the meals which the Lion had provided, and they continued to live in this manner for three years.

11. At the end of this time, the slave, supposing that his master had left Africa, and that he was himself probably forgotten, took an opportunity, when the Lion was absent, to leave the den, and escape to the Roman colony. But he was recognised, apprehend-

How do the keepers of wild beasts amuse themselves ?

What example is strikingly illustrative of the Lion's generosity ?

ed, and sent to his master at Rome, who ordered him to be thrown to the wild beasts in the amphitheatre.

12. When he was thrown in, an enormous Lion ran up to him, to his great terror. But what was the surprise of the spectators to see this beast, instead of devouring him, fawn upon him like a familiar dog. Androcles at once recognised his old friend of the cave; the Lion, like himself, having been taken and brought to Rome for the amusement of the populace.

13. Caligula, who was at this time emperor of Rome, hearing of this singular circumstance, compelled the inhuman master to give the slave his liberty. The emperor also gave the Lion to Androcles, who was accustomed to go about the city with this animal attending him. The rewards he received for thus gratifying public curiosity, became a source of wealth to the liberated slave.

THE TIGER.

14. THE Tiger is found principally in the East

Who was emperor of Rome at this time ?
What did he compel Androcles' master to do ?
How did Androcles acquire wealth ?
Where is the Tiger found ?

Indies, and usually resides in woods and thickets, near streams and morasses. The Tiger, in appearance, is a beautiful animal. His hair possesses a glossy smoothness, and is of a yellow colour, with very black stripes running down his sides. His form is slender, truly elegant, and well adapted for swiftness and agility.

15. But under the garb of beauty, the Tiger possesses a ferocious and truly malignant disposition. Compared with the lion, he is found equal in size, courage, and strength, but totally destitute of that animal's noblest quality, generosity. While the lion seldom attacks any one except he is urged by necessity, the Tiger, on the contrary, seems to delight in the shedding of blood, attacks without provocation, and, though glutted with slaughter, is never satisfied.

16. The Tigress possesses the same ferocity as the Tiger. If her young be taken from her, she pursues the offender with incredible rage. The cunning hunter, upon this, drops one of the young, with which the Tigress returns to her den. She again pursues him, upon which he drops another, and before she returns a third time, he usually escapes with the remainder.

17. An eastern traveller gives an extraordinary instance of the strength of the Tiger. "A man had the misfortune to have a buffalo fall into a quagmire; and, not being able to extricate it himself, he ran home to procure the help of some friends.

Describe the appearance of the Tiger.

What is the Tiger's disposition?

Compare the Tiger with the lion.

What is said of the Tigress, and the manner of taking her young?

18. "The man returned, accompanied by several others prepared to lend him aid ; but the first object they saw was, a Tiger with the buffalo thrown across his back, hastening to the woods. The moment he saw the men, he let fall his prey, and fled ; but he had killed the buffalo, and sucked his blood, or he probably would not so readily have resigned his prey."

19. The following fact shows the great power which the human eye has over the Tiger. A British officer in India, rambling in a jungle, chanced to encounter a large Tiger. He was unarmed, but fortunately recollected to have heard, that the Tiger might be checked by looking him firmly in the face.

20. He therefore fixed his eyes steadily upon those of the Tiger. The effect was instantly visible. The animal, who was preparing for a spring, grew disturbed, shrunk aside, and endeavoured to get behind the officer. But the officer turned with him, and continued his gaze.

21. They remained in this way for more than an hour ; the officer preserving an intent and steady look, and the Tiger making fruitless attempts to surprise his vigilance. At last the Tiger was overawed, and made a hasty retreat.

22. The Tiger cannot be tamed. Neither kindness nor severity affects his savage nature. He snaps at the hand which gives him food, and that which chastises him, with the same ferocity ; and, though confined by bars and chains, he is always striving to exercise his fierceness and cruelty.

What does an eastern traveller relate of the Tiger's strength ?
What fact shows the power of the human eye over the Tiger ?
Can the Tiger be tamed ?

THE PANTHER.

23. THE Panther inhabits the country from Barbary to the remotest part of Guinea. It somewhat resembles the tiger in appearance, but still more in ferocity. Like the tiger, he has an insatiable thirst for blood, and a fierceness that no treatment can subdue or soften.

24. The Panther is about six feet long. His colour is a bright yellow, with black spots disposed in circles, instead of stripes, except on the lower part of the body, which is white. He has short and pointed ears, fierce and restless eyes, a strong cry, and a savage aspect.

25. Such is the Panther's agility, that few animals can escape him. He climbs trees with the greatest ease, and springs from them upon his victim with fatal precision, sometimes to an astonishing distance.

Where is the Panther found ?

What animal does the Panther resemble ?

Describe the Panther.

What is said of the Panther's agility ?

THE LEOPARD.

26. The Leopard is a native of Asia and Africa. He is about four feet in length. His coat is much more beautiful than that of the panther; the yellow being more brilliant, and the spots disposed in clusters of four or five, which bear a considerable resemblance to the print of the animal's foot in the sand.

27. The Leopard is also a fierce animal, and attacks both man and beast. The Leopards are hunted principally for the sake of their skins, which are very valuable, and applied to various ornamental uses. Their flesh is also much relished by the negroes, who frequently take them in pitfalls, baited with a piece of meat, or some small animal.

28. When these animals cannot obtain a supply of food in the desert, they sometimes make terrible destruction among the cattle of the inhabitants. A male and female Leopard, with their young ones, once entered a sheepfold near the cape of Good

Where is the Leopard found ?

Describe his appearance.

What is the character of the Leopard ?

What are Leopards hunted for ?

Hope, and killed about a hundred sheep, and regaled themselves by sucking their blood.

29. When the old ones were satisfied, they tore a carcass into three pieces, and gave one piece to each of their offspring. They then took each a whole sheep, and began to move off. Having been observed, they were waylaid on their return, and the female and three young ones were killed, but the male effected his escape.

THE OUNCE.

30. THE Ounce is found in Persia and China. He is much less in size than the panther, not being more than three feet and a half in length. The hair is very long, and the tail frequently measures more in length than the whole body besides. He is of a cream colour, and is sprinkled all over with numerous irregular black spots and marks.

31. The Ounce is often tamed, and used for the purpose of hunting antelopes. He is carried on

What is related of a male and female Leopard with their young?

Where is the Ounce found?

Describe the Ounce.

What is he used for?

Describe the manner of hunting the antelope.

horseback behind the rider on a small leather pad, made for the purpose. As soon as the horseman sees an antelope at a moderate distance, he makes the Ounce descend, which, creeping unperceived near the spot, springs at five or six amazing leaps suddenly upon it, and seizes it securely by the neck.

THE LYNX.

32. THE Lynx is found in the most northern parts of Europe, Asia, and America. It differs from the animals of the panther kind in the shortness of its tail, which does not exceed six inches. The upper part of the body is of an ash colour. Underneath it is white.

33. It climbs the highest trees of the forest, and conceals itself in the branches, in order to watch for weasels, ermines, squirrels, and other animals. It also commits great devastation among the flocks, and frequently destroys vast numbers of hare and fallow-deer.

Where is the Lynx found ?

Describe the Lynx.

How does it take its prey ?

34. Its sight is so acute that the ancients believed it to have the faculty of seeing through stone walls ; and it appears to be certain that it can distinguish its prey at a greater distance than any other carnivorous animal. “ As keen-sighted as the Lynx ” is an adage which has been founded on this faculty, which the animal possesses.

35. The Lynx is very cunning in undermining sheepfolds. It is said, in the Natural History of Norway, that one of these animals, being at work, was perceived by an old he-goat, who watched him very narrowly, and, the moment his head appeared inside of the fold, bunted him so violently, that he laid him dead in his burrow.

THE CATAMOUNT.

36. THE Catamount, which is also called the Ocelot, or Tiger Cat, is found in North America, and formerly existed in considerable numbers. It is about two feet and a half in length. In form it resembles a cat, except it is more slightly formed in pro-

What is said of the Lynx's sight ?

Relate the anecdote of the Lynx and he-goat.

Where is the Catamount found ?

Describe the Catamount.

portion to its size. Its colour is reddish, interspersed with black spots and stripes, which have a beautiful effect upon the creature's skin.

37. It is an exceedingly ferocious animal, yet cowardly, and prefers blood to flesh, in consequence of which its victims are numerous. Neither blows nor caresses can make it tame.

THE WILD CAT.

38. THE Wild Cat has been denominated, by the inhabitants of Great Britain, the British Tiger, inasmuch as it is by far the most formidable and ferocious quadruped in their island. It is found likewise in the American forests in great abundance.

39. It is somewhat larger than the domestic cat. Its fur, also, is much longer, which adds to its apparent magnitude. Its face is more flat, and its teeth and claws are much more formidable.

40. Its colour is grayish, and is diversified with dusky stripes; those on the back running longitudinally, and those on the sides transversely, and in a

What is the character of the Catamount?

What has the Wild Cat been called in Great Britain?

Where is it found?

Compare it with the domestic cat.

What is said of its colour?

curved direction. The tail is marked with dusky rings.

41. The Wild Cats have their habitations in hollow trees, in the fissures of rocks, and in deep and narrow holes on the face of dreadful precipices, from which, during the night chiefly, they issue forth in search of prey. It is dangerous merely to wound one of them, as they will turn on their assailant, and have strength enough to render themselves formidable.

THE DOMESTIC CAT.

42. THE Domestic Cat is found in almost every part of the globe. It is a subdued variety of the wild species ; and, even now, when it is enraged, it seems to partake, in some degree, of the native ferocity of its original. The Cat has only the appearance of attachment ; and it may easily be perceived, by its timid approaches and sidelong looks, that it either dreads its master, or distrusts his kindness.

What places does the Wild Cat inhabit ?

When do they seek their prey ?

Why is it dangerous to wound them ?

Where is the Domestic Cat found ?

Of what species is the Domestic Cat a variety ?

What is said of its attachment to its master ?

It seems assiduous to please, but it often obtains confidence merely to abuse it.

43. Generally speaking, these animals have but a slight affection for the person with whom they live; their attachment being rather for the house than the owner. Yet their figure, their tricks, their graceful motions, and the beauty of their skins, render them almost universal favourites. When young they are exceedingly playful, but with age they acquire much gravity, and often an increase of savageness. In their habits they are active, cleanly, delicate, and remarkably fond of ease.

44. They possess a very acute sense both of sight and smell; and by the peculiar structure of their eyes, which sparkle in the dark, they are able to discover their prey, such as rats and mice, as well in the night as during the day; and a Cat that is a good mouser will soon clear a house of these troublesome little quadrupeds.

45. By the ancient Egyptians cats were considered as objects of sacred worship. How far their superstition carried them may be shown by the following historical fact. When Cambyses, the Persian general, attacked Pelusium, a strong city on the confines of Egypt, he commanded his army, as they made an onset, to carry with them a vast number of Cats.

46. This stratagem had the desired effect; for

What are they attached to rather than their owner?

What makes them such favourites?

How are they in their habits?

What is said of their sense of sight and smell?

How do they discover their prey?

How were Cats considered by the ancient Egyptians?

How did Cambyses, the Persian, attack and take possession of Pelusium?

the inhabitants, through fear of killing one of their imaginary deities, never struck a blow ; but retired, leaving the enemy in the quiet possession of the city.

47. We are informed by Herodotus, the Greek historian, that whenever a Cat died a natural death in Egypt, the inhabitants of the house were accustomed to shave their eyebrows in token of sorrow, and the animal so dying was embalmed and nobly interred

THE HORSE.

48. THE Horse is found in almost every part of the world in a domestic state. He is found wild in Africa and Arabia ; also in South America, and the western parts of North America, having been introduced to the latter countries by the Spaniards.

49. The Horse is the most noble and the most

What is related by Herodotus as happening upon the death of a Cat ?

Where is the Horse found ?

What is said of the Horse compared with other domestic animals ?

useful of the domestic animals. With less sagacity than the elephant, he still possesses that quality in a high degree, and is generous, mild, and even affectionate in his nature. The numerous services which he renders to mankind are too well known to need enumeration here.

50. The very appearance of the Horse denotes great strength, remarkable activity, and a lofty spirit; yet he is submissive to the command of man: he not only yields to the hand that guides him, but he attends quickly to the wishes of his rider; and, obedient to the impressions he receives, presses on, or stops, at his rider's pleasure.

51. To have an idea of this noble animal in his native simplicity, we are not to look for him in the stables to which he has been consigned by man, but in those wild and extensive plains where he has been originally produced; where he ranges without control, and enjoys that freedom bounteous nature gave.

52. Which is the original country of the Horse it is not easy to ascertain. Arabia, where he exists in the highest perfection, seems to have the fairest claim; but he is to be found in almost every country of the globe.

53. The Horses of Arabia and Barbary have been considered the finest in the world, but those of England have, by great care and management, become extremely noble, elegant, and active.

54. A reflecting mind cannot but lament, that, after his strength is exhausted by labour and fatigue

What does the appearance of the Horse denote?

Where are we to look for this animal in his native simplicity?

Is it known to what country the Horse originally belonged?

What country appears to have the fairest claim to him?

What is said of the Horses of Arabia and Barbary?

Why is the condition of the Horse to be lamented?

in the service of man, he should be condemned to drag out the remnant of his days under the wanton scourge of cruelty and oppression; and, instead of finding an asylum for infirmity and age under the care of him who had been the destroyer of his vigour and health, that he should be bartered away to the first unfeeling bidder who may offer a few dollars for the dregs of his life.

55. As an instance of the great attachment which the Arab feels to his Horse, the following account is related. "The whole stock of a poor Arabian of the Desert consisted of a most beautiful mare. The French consul at Said offered to purchase her for his master, the king of France.

56. "The Arab hesitated for a long time, but, pressed by want, he at length consented to sell her for a considerable sum of money. The consul, not choosing to give so high a price without instruction, wrote to France for permission to make the purchase. Louis XIV. gave orders to pay the money.

57. "The consul immediately sent notice thereof to the Arab, who soon made his appearance, mounted on his beautiful Horse, and the gold he had demanded as her price was paid down to him. The Arab, covered with miserable clothing, dismounted, and looked at the money; then, turning his eyes to his mare, he sighed, and thus addressed her:

58. "'To whom am I going to yield thee up? To Europeans, who will tie thee close, who will beat thee, who will render thee miserable: remain with me, my beauty, my darling, my jewel, and rejoice the hearts of my children.' As he pronounced these

What instance is related of the Arab's attachment to his Horse?

words, he sprang on her back, and galloped off towards the Desert."

THE ASS.

59. THE domestic Ass is found in almost every country ; the wild Ass in the mountains of Tartary, Siberia, and Persia. Though less beautiful than the horse, the Ass, when properly kept, is a handsome animal. He is much stronger, in proportion, and much more hardy, than his favoured rival. He has the additional advantage of being less subject to disease, and capable of living upon very humble fare. It is only in the article of water that he can be said to be dainty ; of that he will drink only the cleanest.

60. When very young, the Ass is sprightly, but he soon loses that quality through ill treatment, and becomes slow, stupid, and stubborn. He is sometimes greatly attached to his owner, whom he scents at a distance, and plainly distinguishes from others in a crowd.

61. When overloaded, he shows his sense of his

Where is the Ass found ?

Compare the Ass with the horse.

What effect has ill treatment upon the Ass ?

master's injustice by hanging down his head, and lowering his ears. He walks, trots and gallops like a horse; but, though he sets out freely at first, he is soon tired of rapid motion, and then no beating will compel him to mend his pace.

62. The Spaniards seem to be the only people of Europe who are acquainted with the value of the Ass. But in Egypt and Arabia they are held in the highest estimation, and are found in the greatest perfection. They are used for riding by the most opulent of the inhabitants, and even ladies of the highest rank.

63. But in most countries this humble animal is doomed to drag out a life of suffering and pain. Its services to mankind, for the most part, are rewarded by cruelty and stripes. When treated with kindness, it shows a strong attachment to its master.

64. An old man, some years ago, sold vegetables in London, and employed an Ass to convey his baskets from door to door. Frequently he gave the industrious creature a handful of hay, or pieces of bread or greens, by way of refreshment and reward. The old man had no need of any goad for the animal, and seldom had occasion to lift his hand to drive him on.

65. This kind treatment having one day excited particular notice, he was asked whether his beast was apt to be stubborn. "Ah! master," he replied, "it is of no use to be cruel, and as for stubbornness. I cannot complain, for he is ready to do any thing, and go any where.

How does he show his sense of his master's injustice?

What animal does he resemble in his gait?

Where are Asses held in the highest estimation?

What is the case with the Ass in most countries?

What anecdote is related of the Ass?

66. "I bred him myself. He is sometimes skittish and playful, and once ran away from me: you will hardly believe it, but there were more than fifty people after him, endeavouring in vain to stop him, yet he turned back of himself, and never stopped till he ran his head into my bosom."

THE ZEBRA.

67. THE Zebra is found only in the eastern and southern parts of Africa, but chiefly in the southern parts: whole herds are often seen grazing in those extensive plains that lie near the Cape of Good Hope.

68. The Zebra is one of the most elegant and untameable of animals. Its skin is as smooth as satin, and adorned with elegant stripes, like ribands, which are brown and white on the male, and black and white on the female. The body is round and plump, and the legs of a delicate smallness. Its voice is thought to have a distant resemblance to the sound of a post horn.

Where is the Zebra found?
Describe the Zebra.

69. It does not appear that any efforts to tame the Zebra have been entirely successful, but, as it resembles the horse in form, it doubtless partakes in some measure of its nature, and may, perhaps, by proper training, be added to the number of our domestic animals.

70. The beauty of the Zebra makes it an acceptable gift to the princes of the East, to whom they are often sent. The African ambassadors frequently bring these animals with them to the court of Constantinople, as presents to the Grand Seignior. We are told that one of the governors of Batavia gave a Zebra, which had been sent to him from Africa, to the emperor of Japan, for which he received, as an equivalent, a present to the value of fifteen thousand pounds.

THE BULL.

71. OXEN, which is the general name given to horned cattle, are found in all parts of the world. The Oxen of Egypt are perhaps equal to any, being

What is said of the attempts to tame the Zebra ?

To whom are Zebras frequently presented ?

Where are Oxen found ?

What is said of the Oxen of Egypt ?

white as snow, of noble stature, and so mild and gentle that they can be easily governed.

72. The Bull equals the horse in stature, but is much stronger made in all parts of his body, particularly about the neck and head. His horns are thick and large, and, when enraged, he gores and tosses both man and beast.

73. Among the various animals with which the world abounds, none is more estimable than the Cow. The horse is, in general, the property of the rich ; but the Cow is the poor man's pride, his riches and support. To the milk of the Cow we are indebted for several important articles of human subsistence, such as milk, butter, and cheese.

74. The Ox is of a sluggish nature, very strong, yet gentle, and is of great use in husbandry. In many countries nearly the whole labour of agriculture is performed by Oxen. In nearly all the eastern countries they are employed in treading corn, a process which answers the purpose of threshing.

75. By the Caffres of the Cape of Good Hope they are used as beasts of draught and burden. When Mr. Barrow and his suite went into the country of the Caffres, the king, who was at a distance from his residence, was sent to ; and he is stated to have arrived riding upon an Ox at full gallop, attended by five or six of his people.

76. It is almost impossible to enumerate all the benefits that mankind derive from these admirable animals : after having served us all their life, they

Describe the Bull.

What is said of the Cow ?

What is the nature of the Ox ?

What is he used for in the eastern countries ?

How are they used by the Caffres ?

What anecdote is related to show this ?

Mention some advantages we derive from these animals.

are fattened for beef, their hides are tanned for leather, and their horns and bones are used for the manufacture of combs, knife-handles, and many other articles. In short, there is scarcely a part of these animals that is not highly useful to mankind.

THE BISON.

77. THE Bison inhabits both parts of the American continent ; and in North America immense herds are frequently seen. The Bison is a variety of the ox tribe. The fore parts of the body are very thick and strong ; the hinder are comparatively slender. The body is in many parts covered with long and shaggy hair. On the shoulders is a high protuberance, which is a distinctive mark of the Bison. This hunch is considered a great delicacy by the Indians.

78. These animals are so ferocious that they cannot safely be pursued except in forests. They com-

What countries does the Bison inhabit ?

Describe the Bison.

What is said of their ferocity ?

monly range in droves, feeding in the open savannahs morning and evening, and reposing, during the sultry parts of the day, on the shady banks of rivulets. Sometimes they leave so deep an impression of their feet on the moist sand, as to be thus traced and shot by the Indians. The usual method of taking them is in pitfalls.

79. The Indians also take them by the following stratagem. An Indian, clothing himself in one of their skins, goes before a drove of them, and entices them to the brow of a precipice. When they come up, he conceals himself among the rocks, and the hinder part of the drove press on with such irresistible force, that those before are hurled headlong down the precipice. The Indians then select such parts of the Bisons as they please, and abandon the rest to be devoured by the wild beasts.

THE BUFFALO.

80. THE Buffalo exists wild in Africa and the warmer parts of India. He is found domesticated

Where do they feed, and at what time repose ?

What is the usual method of taking the Bison ?

Where is the Buffalo found wild, and where tame ?

in Europe, particularly in Italy. He bears a strong resemblance to the common ox, yet differs from it in being larger, having a head bigger in proportion, and horns differently shaped.

81. When wild they are a fierce and formidable race ; and there is no method of escaping them but by climbing up some immense tree. A tree of moderate size would be no security, for he can easily break them down ; and many travellers have been instantly gored to death, and then trampled to pieces by their feet.

82. Although so ferocious in a state of nature, no animal can be more easily tamed. They are extensively used in Europe, particularly in Italy, where they constitute an essential part of the riches and food of the poor. They are employed in agriculture ; butter and cheese are made from their milk, and their flesh affords wholesome food.

83. " A singular circumstance relative to the Buffalo is recorded by the navigators who completed the voyage to the Pacific Ocean begun by Captain Cook. When at Pulo Condore, they procured eight Buffaloes, which were to be taken to the ships, by means of ropes put through their nostrils, and round their horns ; but when they were brought within sight of the ship's people, they became so furious that some of them tore their noses, and set themselves at liberty ; and others broke down the shrubs to which it had been necessary to fasten them.

84. " All attempts to get them on board would

Describe the Buffalo's appearance.

What is said of the Buffalo when wild ?

Is the Buffalo easily tamed ?

What is said of the Buffalo when tamed ?

What singular circumstance is related by the navigators to the Pacific Ocean ?

have proved fruitless, had it not been for some children, whom the animals would suffer to approach them, and by whose childish management they were brought to the shore, and, ropes being twisted round their legs, the men were enabled to throw them down, and thus get them into the boats. And what appeared also very remarkable was, that they had not been a day on board the ship before they became perfectly gentle."

THE ELEPHANT.

85. THE Elephant is a native of the warmer parts of Asia and Africa. He is probably the largest land animal in the world, varying from nine to twelve feet in height. His forehead is very high, his ears very large and flapping, and his eyes very small. Two long tusks proceed from his upper jaw, sometimes weighing one hundred or more pounds each. These he uses to defend himself from his enemies.

Where is the Elephant found ?

What is said of his size ?

Describe the various parts of the Elephant ; his forehead, ears, eyes, and tusks.

86. Between the tusks is his trunk. This is several feet long, and by means of it he conveys all his food and drink to his mouth. With it he can pick up a pin, untie a knot, uncork a bottle, and unlock a door. A single blow of his trunk will kill a man.

87. Though his eyes are small, they are capable of a variety of expression which is not to be found in those of any other animal. He is also remarkable for his acuteness of hearing. His sense of smelling, likewise, is exquisite; he is fond of the odour of flowers, and will gather them, and gratify himself by inhaling their fragrance.

88. Although the Elephant is the strongest as well as the largest of quadrupeds, in a state of nature it is neither fierce nor formidable. No less pacific than brave, it never abuses its power, and only exerts its strength for its own protection, or that of its herd. In its native deserts the Elephant is rarely seen alone, but appears to be a friendly and social creature. The herds generally consist of from forty to a hundred.

89. When brought under the dominion of man, the Elephant becomes the most gentle and obedient of all animals. He shows his fondness for his master by caressing him; and, when he wishes to ride, kneels for him to mount upon his back. Many instances have been related of his exhibiting much gratitude for favours received.

90. Formerly, Elephants were much used by the inhabitants of Asia in war. A tower was placed

Describe the trunk of the Elephant.

What is said of the expression of his eyes?

What senses does he possess in great perfection?

What is said of the Elephant in a state of nature?

How does he become when tamed?

What were Elephants formerly used for by the inhabitants of Asia?

upon the back of the animal, and in this were five or six men, who threw arrows and darts at the enemy. One man sat upon his neck, and with an iron rod directed his course among the thickest ranks of the enemy. The Elephant with his enormous weight would trample many under his feet.

91. One mode of taking these animals, in the East Indies, is by digging pits, and slightly covering them with grass or straw, on passing which, the bulky animal is sure to fall in. "An Elephant, who was thus taken, being discovered by some other Elephants, their sagacity immediately set them to work in collecting stones and branches of trees, and casting them into the pit, by which means the pit was nearly filled up, and the captured Elephant, being thus raised, was enabled to make his escape."

92. "In the Philosophical Transactions, a story is related of an Elephant having formed such an attachment for a young child that he was never happy but when it was near him. The nurse frequently took the child in its cradle, and placed it between his feet.

93. "This he at length became so accustomed to, that he would never eat his food, except the child was present. When the child slept, he would drive off the flies with his trunk; and, when it cried, would move the cradle backward and forward, and thus rock it to sleep."

Describe their manner of making war with Elephants.

What is one mode of taking this animal in India?

What instance of their sagacity was displayed upon one of these occasions?

What story is related of the Elephant in the Philosophical Transactions?

THE RHINOCEROS.

94. THE Rhinoceros is found in the deserts of both Asia and Africa. He is next to the elephant in size and strength, being usually about twelve feet long and seven high. Though possessed of great strength, he is usually quiet and inoffensive, but, when provoked, few animals are able to contend against him.

95. The Rhinoceros has one very singular horn, projecting directly from the snout, sometimes two or three feet in length. This horn is a formidable weapon, growing from the solid bone, and placed so as to inflict deadly wounds. With this the Rhinoceros strikes with great force, and the tiger will more willingly attack any other animal than one whose strength is so justly employed. The Arabians make sword-hilts of the horns of this animal.

96. His skin lies in folds upon the body, and it is so thick and tough as to defend it from every attack; it will turn the edge of a sword, and even resist a

Where is the Rhinoceros found ?

What is said of his size and strength ?

What is said of the horn of this animal ?

Describe the skin of the Rhinoceros.

musket-ball. In Asia these skins are considered very valuable, and are manufactured into shields and other articles.

THE BEAR.

97. THERE are two principal varieties of the common Bear; the brown and the black. The former is found in almost every climate, but particularly in the mountains of the Alps. The black Bear is found in the northern regions of Europe and America.

98. The brown Bear is both a savage and solitary animal, inhabiting chasms and precipices, and frequently choosing for its abode the hollow of some tree. Here it passes several months in the winter, in a state of torpidity, from which it issues in the spring, lean, and half famished from its long confinement. It feeds with avidity upon honey and fruits.

99. The black Bear resembles the brown in most respects except colour. It usually chooses its retreat in a hollow tree. It is hunted for its skin,

What are the principal varieties of the common Bear ?

Where are they found ?

Describe the brown Bear. What does it feed upon with avidity ?

Describe the black Bear. What is it hunted for ?

which forms a considerable article of commerce. Its paws are considered a great delicacy by the Indians, and its hams are universally known to be good.

THE WHITE BEAR.

100. THE White Bear inhabits only the very coldest parts of the globe, and has been found above latitude 80, as far as navigators have penetrated northwards. The White Bear differs greatly from the common Bear, being sometimes above twice the size of the latter. Some of them are thirteen feet long.

101. The ferocity of the White Bear corresponds with his magnitude. He has been known to seize sailors, and devour them in the presence of their comrades. This animal lives on fish, seals, and dead whales, and seldom goes far from shore ; sometimes,

What is said of its paws and hams ?

What parts of the globe does the White Bear inhabit ?

What is the size of the White Bear ?

What is said of his ferocity ?

How does he subsist ?

however, he is seen on icefloats several leagues at sea, and is often transported in this manner to Iceland, where he no sooner arrives than all the natives are in arms to receive and destroy him.

102. "Not many years ago, the crew of a boat belonging to a ship in the Greenland whalefishery, shot at a Bear, and wounded him. The animal directly set up a dreadful howl, and ran along the ice towards the boat. Before he reached it, a second shot was fired, which also hit him; this increased his fury.

103. "He presently swam to the boat, and, in attempting to get on board, placed one of his paws upon the gunwale; but a sailor, having a hatchet in his hand, cut it off. The animal, however, still continued to swim after them, till they reached the ship, and several shots were fired at him, which took effect; he immediately climbed upon the deck, and was pursuing the crew into the shrouds, when he was instantly shot dead."

THE SLOTH.

104. OF this singular animal there are two species; one is called the Three-toed Sloth, and the

How is he often transported to Iceland?

What anecdote is related of a combat between a White Bear and the crew of a whale-boat?

How many kinds are there of the Sloth?

other the Two-toed Sloth, from the number of toes on each foot. The former is found in South America, the latter chiefly in the East Indies and the island of Ceylon.

105. Sloths are the most inactive of all living creatures. They have a clumsy form, languid and heavy eyes, and a countenance so expressive of misery as to excite compassion. Their fur is long and coarse, somewhat resembling dried grass; the mouth extremely wide; and the legs set on so awkwardly, that a few paces often require a journey of a week. They seldom move unless impelled by hunger.

106. The Sloth subsists wholly on vegetable food, and, as it is a great eater, it generally strips a tree of all its verdure in a fortnight. It then devours the bark, and thus, in a short time, destroys the very source of its support. When this is the case, it either descends, or lets itself drop to the ground, the thickness of its skin and length of its hair protecting it from injury. Then it prepares for another tedious journey to some neighbouring tree, which is soon killed like the former.

107. Its power of abstinence is very remarkable; as, from the difficulty of procuring its food, it is often obliged to go several days without any supply; and we are informed of one, that remained suspended to a pole across two beams, without any sustenance, for forty days.

Where are they found?

What is the character of the Sloth?

Describe the appearance of the Sloth.

Describe the manner in which the Sloth subsists.

What is said of its power of abstinence?

THE CAMEL.

108. THE Camel is found in many parts of Asia and Africa. It has two hunches on the back, and is remarkable for the large callosities at the bottom of the breast and on the knees, well adapted to its habits of kneeling on the sand in the deserts. The feet are flat and tough, divided above, but not quite through, which enables it to traverse the sandy plains without being subject to chaps in the hoof.

109. In Arabia and other countries, where the Camel is trained to useful purposes, it is considered as a sacred animal, without which the natives could neither traffic, travel, nor subsist. It must also be observed that this animal is capable of such long abstinence, that it will travel several days without a supply of water, and with no other food than a few

Where is the Camel found ?

What is there remarkable in its appearance ?

What is said of the feet ?

How is the Camel considered in Arabia and other countries where it is used ?

What is said of the abstinence of the Camel ?

dates, or the scattered thorny plants which it can find in the sandy deserts.

110. Merchants, and other passengers, to prevent the insults and robberies of the Arabs, unite together with their Camels, sometimes to the number of ten thousand, and form what is called a caravan. In these commercial travels they usually go about two thousand miles.

111. The Camel is taught, when young, to kneel down, and receive its burden, or let its master mount upon its back. It usually carries about half a ton in weight. When heavily loaded, it sometimes sends forth the most piteous complaints, but never offers any resistance. It is always obedient and submissive to the command of its master.

THE DROMEDARY.

112. THE Dromedary, or single-hunched Camel, is found principally in Arabia. In its nature it re-

What forms what is called a caravan?
How far do the caravans usually go?
What is the Camel taught when young?
How much weight does it usually carry?
When heavily loaded, how does it behave?
Where is the Dromedary found?

sembles the camel. It is patient, abstinent, and submissive. It is much superior to the camel in swiftness, and is used by couriers to carry information with speed across the desert. It can travel fifty leagues, or one hundred and fifty miles, in a day, and thus place its master beyond the reach of any enemy.

THE LAMA.

113. THE Lama is a native of the southern parts of South America. It is generally three or four feet high, and five or six long. In its form it bears a general resemblance to the camel, but, instead of a protuberance on its back, it has one on the breast. Its colour is white, gray, and russet, disposed in spots.

114. Though the Lama is by no means equal to the camel either in exertion, perseverance, or strength, yet, as it thrives without trouble or care,

In what respect is it superior to the camel?
How far can it travel in a day?
Of what country is the Lama a native?
Describe the Lama.

and is satisfied with the coarsest vegetable food, the South Americans find it the most useful of their steeds, and it can even go longer than the camel without water or food.

115. In a wild state, the Lamas associate together, in immense herds, on the highest parts of the mountains, and, while they are feeding, a sentinel is stationed to give warning of any hostile intruder.

THE MASTIFF.

116. THE Dog is found in almost every part of the known world. He is allowed to be the most intelligent of all quadrupeds, and one that, doubtless, is most to be admired ; for, independent of his beauty, his vivacity and swiftness, he gives the most manifest proofs of his attachment to mankind.

117. Always assiduous in serving his master, and only a friend to his friends, he is indifferent to every

On what accounts do the South Americans find it the most useful of their steeds ?

What is their manner of living in a wild state ?

Where is the Dog found ?

What is said of his intelligence ?

What is he to be admired for ?

What is said of his disposition toward his master and friends ?

one else. Constant in his affections, friendly without interest, and much more mindful of benefits received than injuries offered, he is not alienated by unkindness, but even licks the hand that has just been lifted to strike him, and eventually disarms resentment by submissive perseverance.

118. The foremost of the tribe of Dogs is the Bloodhound. He is a tall, beautifully formed animal, usually of a reddish or brown colour. He was formerly employed in England to recover any game that had escaped from the hunter, or had been stolen out of the forest; but he was still more serviceable in hunting thieves and robbers by their footsteps. In the Spanish West India islands he is used in the pursuit of criminals.

119. The Mastiff is large and strong; he has a large head, thick, hanging lips, and a bold countenance. He is commonly employed as a watch Dog. He seldom uses violence against intruders unless resisted, and, even then, he will hold a person for hours, without doing him further injury, till he is relieved.

120. The Bull-dog is less in size than the Mastiff, but nearly equal to him in strength, and superior in fierceness.

121. The Terrier is a small kind of hound, endowed with the most obstinate courage. He is very expert in forcing the fox and other game from their coverts, and is usually employed for this purpose.

Describe the Bloodhound.

What was he formerly used for?

What is he used for in the Spanish West India islands?

Describe the Mastiff. What is the Mastiff used for?

What is said of the Bull-dog?

How is the Terrier described?

122. The Coach-dog is chiefly valued for its beauty, its colour being white, elegantly and profusely marked with round black spots. Its power of smelling is indifferent, and it is generally kept in genteel houses as an attendant on a carriage.

THE GREYHOUND.

123. THE Greyhound has a long and slender body, also a long and tapering head. His eyes are full, and his ears small. He is the swiftest of the Dog kind. He courses by sight, and not by scent, as other hounds do; and he is supposed to outlive all the Dog tribe. This elegant animal was once held in such estimation in England, that he was the peculiar companion of a gentleman, who was anciently known by his horse, his hawk, and his Greyhound.

124. The Pointer is trained with care and attention, so as to afford great assistance to the sports-

What is the Coach-dog valued for?

Describe the Greyhound.

In what estimation was the Greyhound once held in England?

man in taking game. He is usually employed in finding partridges, woodcocks, and other birds.

125. The Spaniel is a beautiful dog of Spanish extraction, whence he derives his name. He has long, hanging ears; his hair is soft, and gracefully curled. His scent is keen, and he is remarkable for his docility and attachment.

126. "A Spaniel, by the name of Dash, belonging to a gamekeeper in England, would not quit his master's bed after his death: being taken away, he perpetually returned to the room, and daily visited the grave; and, in spite of all the kindness that was shown him, he died at the end of fourteen days."

127. The Springer is a lively and pleasant species of Dog, and is very expert in raising woodcocks and snipes from their haunts in woods and marshes, through which it ranges with an untirable perseverance.

THE NEWFOUNDLAND DOG.

128. THE Newfoundland Dog came originally from the island whence it derives its name. He has

How is the Pointer usually employed? What is said of the Spaniel? What anecdote of the Spaniel shows his attachment to his master? Describe the Springer.

a pleasing countenance, is docile, and of great size and sagacity. In his native country, he is extremely useful, being employed to bring wood from the interior.

129. The Newfoundland Dog has also proved itself of great use in saving the lives of numberless persons, who were on the point of drowning ; and this circumstance, together with his uniform good temper, has rendered him a universal favourite.

130. Numerous anecdotes are related to show the sagacity and usefulness of the Dog. In 1791, a person applied at a house in Deptford, in England, pretending that he had just arrived from the continent. Having agreed upon the terms, he said that he would send his trunk that night, and come himself the next day.

131. About nine in the evening the trunk was brought, and the family were about going to bed, when the little house Dog placed himself opposite the trunk, and commenced an incessant barking. The suspicions of the family were roused ; they broke open the trunk, and found in it their new lodger, who had thus been conveyed into the house, with the intention of robbing it.

132. " A French merchant, having some money due from a correspondent, set out on horseback to receive it, accompanied by his Dog ; and, having settled the business to his satisfaction, placed it in the bag that contained his clothes. Finding himself rather fatigued with his journey, he resolved to repose under a hedge, and, untying the bag from the

Mention some particulars regarding the Newfoundland Dog.

Relate some anecdotes to show the sagacity and usefulness of the Dog.

front of his saddle, placed it carefully under his head.

133. "After having remained some time in this situation, he arose and remounted, without even a thought of his bag. The Dog, who had witnessed this mark of inattention, attempted to recall his recollection by barks and screams; and, finding the bag too heavy for his utmost exertions, ran howling after him, and caught the horse by the heels.

134. "The merchant considered these as symptoms of madness, and, perceiving that he did not drink as usual when he came to a stream, he was confirmed in the opinion. Thinking it an act of necessity to kill him, he drew a pistol, and with averted face, from affection for the Dog, fired. The ball took effect, and the Dog, though not dead, was mortally wounded.

135. "The bleeding animal endeavoured to crawl towards his master, whose feelings revolted at the affecting sight, and, spurring on his horse, he pursued his journey, with the image of his expiring favourite strongly impressed on his mind. He exclaimed, 'I had rather lost my money than so affectionate a dog;' when, stretching out his hand, as if to grasp the treasure, he found it was gone.

136. "His eyes were instantly opened to see the truth. 'What a wretch have I been!' said he. 'Poor faithful creature! how have I rewarded thy fidelity!' He immediately turned his horse, and set off with the fleetest motion, and soon came to the spot where the proof of his folly was displayed; and every drop of blood that he saw seemed to reproach him with injustice. By the drops of blood he was enabled to trace the creature's footsteps.

137. "When the merchant came to the hedge,

he found his faithful Dog still guarding his money. The poor animal no sooner perceived his master approaching, than he testified his joy by the wagging of his tail; and absolutely expired in licking the hand which caressed him, as if in token of forgiveness for having taken away his life."

THE WOLF.

138. THE Wolf is found in various parts of the world, but chiefly in the temperate and cold latitudes. He is about three feet and a half long. His colour is a mixture of black, brown, and gray. His eyeballs are of a fiery green, which gives a fierce and formidable air to his whole visage.

139. He is naturally dull and cowardly in his disposition; but necessity makes him bold, and he will attack sheep and lambs, and even dogs. When much pressed with hunger, he does not hesitate to fall upon man. The smell of his breath is exceedingly offensive, and his flesh so bad that it is rejected by all other quadrupeds.

In what latitudes is the Wolf chiefly found? Describe the size and appearance of the Wolf. What is the disposition of the Wolf naturally?

140. M. De Buffon reared some wolves, which were very docile, and even courteous, during the first year, and, when properly fed, they did not even attempt to touch the poultry, or other animals; but when they attained to the age of eighteen months, he found it necessary to chain them to prevent their doing mischief.

141. One was allowed to range at large among the fowls, and never seized any of them till he was nineteen months old, when, as a specimen of what he could do, he killed the whole in one night, without eating any of them. Another broke his chain and ran away, but not till he had killed a dog, with whom he had been very familiar.

THE FOX.

142. THE Fox is found in almost every part of the world. He is less in size than the wolf, not being more than two feet three inches in length. His tail is more bushy, his nose smaller, and his hair much softer.

143. The Fox has ever been famous for his cun-

What is related of some Wolves raised by Buffon?

Where is the Fox found? How does he compare with the wolf in size? What has he always been famous for?

ning and his arts, and his reputation is somewhat deserved. He makes his kennel at the edge of a wood, and yet as near as possible to some cottage, where he can hear the crowing of the cocks and the cackling of the hens. If he can get into the yard, he first levels all the poultry without remorse, and then carries off the whole, one at a time, and conceals them in different places.

144. He also is very expert in taking birds from the springes which are set for them by the fowler. He finds out birds' nests, and often seizes the sitting partridges and quails, catches young rabbits, and destroys a large quantity of game. When pressed by hunger, he preys on rats, mice, serpents, toads and lizards.

145. The chase of the Fox affords much amusement to sportsmen. He is followed by a pack of hounds, who, after having tired him out, overtake and destroy him, or drive him round in a circuit, when he is shot by the hunter. The skins of the Fox are an article of trade, being valuable on account of their fur.

146. "A female Fox, possessed of one cub, was pursued by a gentleman's hounds near Chelmsford, in England. The poor animal, at the moment of their approach, instantly thought of the safety of her young, and, taking it up in her mouth, fled before her pursuers for several miles, panting under the weight of her burden, yet resolved to preserve it at the hazard of her life.

147. "At length, exhausted by fatigue and fear, she was attacked by a mastiff in a farmer's yard,

In what ways does he contrive to get his prey? Describe the chase of the Fox. What anecdote is related of a female Fox and her cub?

and, unable to support her charge any longer, dropped it from her jaws at the farmer's feet, who kindly saved it from the mastiff's power, while the mother fortunately escaped from her pursuers, and preserved her life."

THE JACKALL.

148. THE Jackall is found in various parts of Asia and Africa, and lives in forests. It is about as large as a middling sized dog, and somewhat resembles the fox, but is more yellow. It seems to rank between the wolf and dog, being, like the former, fierce and savage; yet it will approach the habitations of man with all the familiarity of the latter. Its cry is a howl, that bears some resemblance to the lamentations of a person in distress.

149. Jackalls never seek their prey alone, but always in packs of from fifty to a hundred. Thus combined, they fear not to attack the largest animals of the forest; and they have so little fear of mankind, that they will pursue the game to their very doors, and even enter sheepfolds, yards, and stables.

Where is the Jackall found? In what respects does it resemble the fox, the wolf and the dog? How do Jackalls seek their prey?

150. They follow armies and caravans in their march, that they may be glutted with the blood of the slain. They are said to be particularly fond of human flesh, and, having once tasted it, are much more eager in the pursuit of it than before.

THE HYÆNA.

151. THE Hyæna is a native of Asia and Africa. It is about the size of a wolf, and somewhat resembles that animal; but the head is broader, the nose flatter, the ears longer, and the eyes placed more like those of the dog. It differs from all other quadrupeds in having but four toes on its feet. The hair is grayish-brown, with black bands on the sides. The back is very bristly.

152. The disposition of this animal is exceedingly savage and fierce. A continual growl shows the ferocity of its nature. When feeding upon its prey, the eyes glisten like two balls of fire; the bristles

For what purpose do they follow armies and caravans?

Of what country is the Hyæna a native? Describe the appearance of the Hyæna. What is the disposition of the Hyæna?

upon its back are all erected, and, with a horrid grin, it shows its extended teeth.

153. The Hyæna is stronger than the wolf, and more courageous. It frequently attacks men, and sometimes carries off cattle. It has the courage to defend itself against the lion, is a match for the panther, and seldom fails to conquer the ounce.

THE SHEEP.

154. THE Sheep, in its present domestic state, is, of all animals, the most defenseless and inoffensive. With its liberty it seems to have been deprived of its swiftness and cunning, and what in the ass is called patience, in the Sheep appears to be stupidity. Loaded with a ponderous fleece, slow and feeble, it would soon be extirpated if exposed to the dangers of the forest; for safety, therefore, it is compelled to rely solely upon man.

155. This animal renders very important services to mankind; but it is too well known to require a detail of its habits or uses. The Sheep of England

What is said in regard to its strength and courage?
What is said of the Sheep in its domestic state?

are very fine, and produce the largest fleeces. But the Merino Sheep of Spain produce wool of a much finer quality, and more valuable. Merino Sheep have, of late years, been extensively introduced into the United States. The manufacture of wool constitutes an important branch of business, both in this country and in Great Britain.

THE GOAT.

156. THE Goat seems, in every respect, more calculated for a life of liberty than the sheep ; being considerably stronger, swifter, and more courageous. Lively, playful, and capricious, it does not submit to be confined, but chooses its own pastures, delights in climbing precipices, and is often seen reposing in tranquil security upon an eminence overhanging the ocean.

157. Nature has, in some measure, fitted it for traversing these declivities ; the hoof being hollow

What is the quality of the Sheep of England and the Merino Sheep of Spain ? Where have Merino Sheep been extensively introduced ? What is said of the manufacture of wool in this country and Great Britain ?

Compare the Goat with the sheep. How is it enabled to traverse rocky and precipitous places ?

underneath, with sharp edges, so that it could walk as securely on the ridge of a house as on level ground. It leaps with the utmost ease and security among the most frightful crags, being remarkably surefooted.

158. In several parts of Ireland, and the Highlands of Scotland, these animals constitute the chief riches of the hardy natives. They lie upon beds made of their skins, which are soft, clean, and wholesome; they eat their milk with oaten bread, and convert a part of it into butter and cheese.

159. Sensible of kindness and caresses, the Goat easily attaches itself to man; sometimes, indeed, so strongly as to become troublesome by its affection; and as it is a hardy animal, and very easily sustained, it is chiefly the property of the indigent.

160. "In the year 1698, an English vessel touching at the island of Bonavista, two negroes came, and offered the sailors as many Goats as they chose to take away. The sailors were surprised at what they considered the effect of uncommon generosity, and informed their captain of the proposal.

161. "Upon the captain's expressing his astonishment at this offer, the negroes assured him that the Goats were multiplied in such a manner, as even to become a nuisance; they added, that, instead of giving any trouble to catch them, they followed the inhabitants with a sort of obstinacy, and rather became importunate with their tameness."

What is said of the Goat in Ireland and the Highlands of Scotland? What anecdote shows the attachment of the Goat to man?

THE IBEX.

162. THE Ibex is found principally on the Alps, the Pyrenees, and the highest mountains of Greece. In the shape of its body, it resembles the goat, but differs in its horns, which are much larger. These sometimes weigh sixteen or eighteen pounds, and are from two to four feet long, being covered with knots. Its colour is brown, with a streak of black along its back.

163. This animal is very agile and strong, and, when closely pressed, will sometimes turn upon the incautious huntsman, and tumble him down the precipices, unless he has time to lie down, and let the creature bound over him; and, if the pursuit be continued, the Ibex will throw himself down the steepest declivities, and fall on his horns in such a manner as to remain unhurt.

Where is the Ibex found? How does it differ from the Goat? How does the Ibex defend itself, and escape from the huntsman?

THE ANTELOPE.

164. THE Antelope, which is also called the Gazelle, is found in Asia and Africa in great numbers, and seems to form the connecting link between the goat and the deer. In the texture and formation of its horns, it agrees with the former, and in graceful make and swiftness, it resembles, and even surpasses, the latter.

165. The horns of this animal are about sixteen inches long, smooth, and spirally twisted; at the bottom they nearly join, but gradually spread as they rise in height. The general colour is brown on the back, and white under the belly.

166. Such is the brightness and beauty of their eyes, that they furnish similes to the poet; and to speak of a lady as "gazelle-eyed" is to pay her one of the highest compliments.

Where is the Antelope found? In what respects does it resemble the goat, and in what the deer? Describe its horns and colour. What is said of the eyes of the Antelope or Gazelle?

THE CAMELOPARD.

167. **THIS** singular quadruped is found only in the deserts and forests of Africa. The head resembles that of a deer, and has two horns of about a foot in length. The neck is very long and slender. The height of the animal, from the fore feet to the top of the head, is seventeen or eighteen feet. The fore legs are a foot and a half longer than the hinder ones.

168. When the Camelopard is standing still, and viewed by a spectator in front, it resembles the trunk of a withered tree. Its defence is in its heels; and its kicks are so extremely rapid, that they are sufficient to defend it against the lion. Like all other

Where is the Camelopard only found? Describe the Camelopard's appearance. How does it defend itself?

horned and cloven-footed quadrupeds, it feeds entirely upon vegetables.

THE CHAMOIS.

169. **THIS** animal in many respects resembles the goat, and is found only in rocky and mountainous regions, principally the Alps and Pyrenees. Its hair is short, and of a yellowish-brown colour. The horns are slender, crooked back at the tip, and about eight inches in length. It has, like all the antelope race, sparkling and animated eyes.

170. The Chamois are found in flocks to the number of a hundred, dispersed over the crags of the mountains. They feed only upon the best herbage, and choose the most delicate parts of the plants, as the flowers and tender buds. Their flesh is of a delicate flavour.

171. The hunting of the Chamois is laborious and extremely difficult. The sportsman must creep a

What does it feed upon?

Where is the Chamois found? Describe the Chamois. How are they found, upon what feed, and what is said of their flesh? Describe the manner of hunting the Chamois.

great distance upon his belly in silence, and also take advantage of the wind, which, if it blow from him, they would instantly perceive. When arrived at a proper distance, he advances his rifle, and tries his fortune among them.

172. The Chamois hunters of the Alps are so fond of the occupation, that it almost becomes a mania, and they will brave every danger in pursuit of this animal.

THE STAG.

173. THE Stag, or Hart, is found in Europe and North America, and is one of those peaceable animals that seems calculated to embellish the forest, and animate the solitude of nature. The elegance of his form, the lightness of his motions, those large branches that seem rather made to ornament than to defend his head, added to his size, beauty and

Where is the Stag found? Describe the character and appearance of the Stag.

swiftness, render him one of the most elegant beasts of the forest.

174. The first year he has no horns ; but afterwards they grow, and are shed regularly every year. The eyes of this animal are really beautiful ; they are at once sparkling, soft and intelligent. His senses of smelling and hearing, also, are no less to be admired.

175. He is extremely delicate in the choice of his food, which consists partly of grass, and partly of the young branches and shoots of various trees. When satisfied with eating, he retires to the covert of some thicket, to chew the cud. The practice of hunting the Stag is very common in the western and northern districts of the United States. The meat is much used as an article of food, under the name of venison ; and the skin is not unfrequently manufactured into garments, and other useful articles.

THE FALLOW-DEER.

176. THOUGH the Fallow-Deer resembles the stag, there is a fixed animosity between the two spe-

What does his food consist of ? Where is the practice of hunting the Stag very common ? What is it valued for ?

cies, and they never will herd in the same place. The horns of this animal are broad and palmated, while those of the stag are slender and round. The colour is a brownish-bay, whitish beneath, and on the insides of the legs.

177. They are seldom found in a wild state, being generally kept in parks for the amusement and luxury of the great. They do not afford the huntsman so much sport as the stag, being less skilful in flight and in the arts of escape from its pursuers.

THE ROE-BUCK.

178. THE Roe-Buck is found in Great Britain in two varieties, the red and brown; but in America the breed is exceedingly numerous, and the variety in equal proportion. It is the smallest of the deer kind, being about two feet and a half high, and three feet long. Its horns are six or eight inches in length, divided towards the extremity into three branches. It is elegant in form, and exceedingly fleet in flight.

Describe the Fallow-Deer. Where are they usually kept?
Where is the Roe-Buck found? Describe the Roe-Buck.

179. He is more cunning in eluding pursuit than the stag; for, instead of continuing his flight straight forward, he confounds the scent by retracing his own track, and then making an enormous bound to one side; having done which, he lies flat and motionless, till the dogs and men have passed by.

180. The Roe-Buck differs materially from the rest of the deer kind in its habits; for, instead of assembling in herds, each one resides with his favourite female and young ones, never admitting a stranger into the little community.

THE REIN-DEER.

181. THE Rein-Deer is found in the northern regions of both continents. It is about four feet and a half high, and has long, slender, and branched horns. The colour is brown above, and white beneath, becoming grayish as the animal advances in age.

What is said of his cunning in eluding pursuit? How does it differ from the rest of the deer tribe?

Where is the Rein-Deer found? Describe its size, horns, and colour.

182. He constitutes the sole wealth of the Laplanders, and supplies to them the want of all other domestic animals. Alive and dead he is equally useful. When he ceases to exist, spoons are made of his bones, glue of his horns, bow-strings and thread of his tendons, clothing of his skin, and his flesh becomes a savoury meat.

183. During his life, his milk is converted into cheese, and he is employed to convey his owner over the snowy wastes of his native country. Such is the swiftness of his race, that two of them, yoked in a sledge, will travel a hundred and twelve English miles in a day.

184. The sledge is of a curious construction, formed somewhat in the shape of a boat, in which the traveller is tied, and if attempted to be guided by a person unaccustomed to it, would be instantly overset. A Laplander who is rich has often more than a thousand Rein-Deer.

185. In summer, these animals feed on various plants, and seek the highest hills to avoid the gadfly, which is very troublesome to them, and even causes their death. In winter, their food consists of moss and lichens, which they dig from under the snow with their antlers and feet.

186. Neither the coldness of the winter, nor the length of the nights, neither the wildness of the forest, nor the vagrant disposition of the herd, interrupt the even tenor of the Laplander's life. By night and day he is seen attending his favourite cattle, and remains unaffected in a season that would be speedy death to those bred up in a milder climate.

Mention some of the uses of Rein-Deer to the Laplanders. Describe the Laplander's sledge. What does the Rein-Deer feed upon? What is said of the Laplander's mode of living?

187. He gives himself no uneasiness to house his herds, or to provide a winter subsistence for them; he is neither at the trouble of manuring his grounds nor bringing in his harvest, for the Rein-Deer finds his own support, and supplies his master with most of the necessaries of life.

THE ELK.

188. THE Elk, or Moose-Deer, is found in the northern forests of Europe and Asia, but it abounds chiefly in North America. It is much larger than the other tribes of deer, being equal to the horse in height and bulk. Its horns are shed annually, and are of such magnitude as often to weigh sixty pounds.

189. Its neck is so short, and its legs are so long, that it cannot graze on level ground, but must browse the tops of large plants, and the leaves and branches of trees. It can step without difficulty over a gate that is five feet high. When frightened, it never gallops, but escapes by a kind of quick trot.

Where is the Elk found ? What is the size of the Elk ? How is the Elk compelled to feed ?

190. The Indians believe that there exists a gigantic Elk, which can walk without difficulty in eight feet of snow, is invulnerable to all weapons, and has an arm growing out of his shoulder, which he uses as we do ours. They consider him as the king of the Elks, and imagine that he is attended by numerous courtiers.

THE HOG.

191. THE Hog is common in most countries of the known world. It appears to hold a rank between the carnivorous animals, or those which feed on flesh, and the graminivorous, or those which feed on grass, possessing the ravenous appetite of the first, and the inoffensive nature of the last. In its teeth it resembles the horse, in its hoofs the cow, in its numerous progeny and voracious appetite the wild cat.

192. The Wild Boar, which is the original of all the varieties of the hog kind, is found in the forests of Germany and Russia. He is neither so stupid nor so filthy as the domestic Hog. The chase of the Wild Boar constitutes one of the principal amusements of

What do the Indians believe in regard to the gigantic Elk ?

Where is the Hog found ? What rank does the Hog hold in the scale of animals ? What is said of the Wild Boar, and where is he found ? What is said of the chase of the Wild Boar ?

the higher ranks in the countries where he is found. This hunting is dangerous, as his tusks are formidable, and he often uses them against his pursuers with terrible effect.

193. The domestic Hog is stupid, filthy, inactive, and drowsy. Its life is a round of sleep and gluttony; and, if supplied with food in sufficient quantities, its flesh soon becomes a greater load than its legs are able to support, and it continues to feed, lying down or kneeling, a helpless instance of indulged sensuality.

194. Under an exterior so disagreeable, however, is concealed one of our most valuable articles of food. As its flesh is capable of being preserved longer than any other, and is very nutritious, it is of great importance to us, as a commercial nation, in stocking our ships. Pork is very wholesome to those who use much exercise, and is always found on the tables of the New England farmers: in the Southern and Western States it is in universal use in the form of bacon.

THE GLUTTON.

195. This animal is found in Siberia, and in the northern parts of America. It is three feet in length,

Describe the domestic Hog. What is said of the importance of its flesh?

Where is the Glutton found? What is its length?

exclusive of the tail: the top of the head, the back, the muzzle, and the tail, are of a blackish-brown colour; the sides are of a dusky hue; and the paws are white. The skin is very valuable.

196. This voracious creature lurks among the thick branches of the trees, in order to surprise the deer. If a deer stops under the tree, the Glutton immediately darts down upon it, and sticks its claws firmly between his shoulders, eating his neck, and digging a passage to the great blood-vessels. At length the deer, exhausted by loss of blood, sinks to the ground.

197. The Glutton eats till it is nearly incapable of motion. It is said that the best time for taking him is, when, according to his custom when gorged, he presses and squeezes himself between two trees which stand near together. In this way he eases and exonerates his stomach, which has not time to digest what he has so voraciously swallowed.

THE BADGER.

198. This is a solitary, inoffensive animal, that lives remote from man, and digs itself a deep, wind-

What is said of its colour and skin? How does the Glutton surprise and kill the deer? What is said to be the best time for taking him?

What is the character of the Badger? How does it live?

ing hole with great assiduity; its legs being very strong, and its claws stiff and horny. It seldom ventures far from its habitation, as it runs but slowly, and can find safety only in the strength of its retreat.

199. When surprised by dogs at some distance from its hole, it falls upon its back, combats with desperate resolution, and seldom dies unrevenged on its enemies. The Badger feeds on both animal and vegetable substances. It sleeps the greatest part of the time, and is particularly fat during the winter season.

THE KANGAROO.

200. THIS animal is a native of New Holland. The first was discovered in 1770, by some persons who sailed with Captain Cook. It is about nine feet long from the tip of the nose to the end of the tail. The fore legs are only a foot and a half long, while the hinder ones measure three feet and a half.

When attacked by dogs, how does it defend itself?

Of what country is the Kangaroo a native? When, and by whom, was it discovered? What is there peculiar about its legs?

201. On account of the difference in the length of its legs, the Kangaroo moves by vast leaps, or bounds, of from twelve to twenty feet. It can leap over an obstacle nine feet high. When at rest, it sits on the whole length of the hind legs from the knees to the feet, supporting itself by the tail extended on the ground. Its tail serves as a weapon of defence, and it is of such prodigious strength, that a single blow will break a man's leg.

THE OPOSSUM.

202. This animal is a native of North and South America. It is distinguished by the possession of a pouch, in which it carries its young. It is about the size of a cat. Its legs are short, and the feet are formed like hands, each having five fingers, with white, crooked nails.

203. The Opossum is slow on the ground, but it climbs trees with much expedition. It feeds chiefly

How does it move? What is said of the strength of its tail?

Of what countries is the Opossum a native? What is it distinguished by? How large is it? What is said of its movements on the ground, and on the trees?

upon birds, and hides among the foliage to take them by surprise ; it also frequently hangs by its tail to watch its prey. Also, by means of its tail, it slings from tree to tree to hunt insects, and to escape from its pursuers.

THE HARE.

204. THE Hare is one of the most persecuted and the most timorous of animals. All its muscles are formed for swiftness, and all its senses seem only given to direct its flight. It has very large, prominent eyes, placed backwards in its head, so that it can almost see behind as it runs : being continually upon the watch, it does not close them even in sleep. Its ears can be moved in every direction, so that the smallest sounds are readily received.

205. Among its enemies are dogs, cats, weasels, birds of prey, and, last and worst, mankind ; so that, although its natural life does not exceed eight years, it seldom lives out half that scanty period. It uses a variety of arts to evade the dogs, but, as it leaves a strong scent, it is usually overtaken.

206. The Hare is a herbivorous animal, living upon tender grass, roots, leaves, fruits, and corn.

In what respects does the Hare seem formed for flight ? Mention some of the enemies of the Hare. What does the Hare feed upon ?

In winter they feed upon the bark of various trees, particularly of the birch, for which they show a great fondness. The Hare may be tamed, and is then a frolicsome and amusing animal.

THE RABBIT.

207. **ALTHOUGH** the hare and the Rabbit are so similar in appearance and disposition, there exists so strong an enmity between them, that they will fight with the bitterest animosity when shut up together.

208. The Rabbit also breeds faster than the hare, producing seven times in the year, and generally seven or eight young ones at a time. Were this to happen regularly for about four years, the progeny of a single pair would amount to almost a million and a half. Their enemies, however, are so numerous, as to prevent any increase injurious to mankind.

209. Among tame Rabbits, the father of the progeny seems to exercise a sort of government. A gentleman, who bred up Rabbits for his amusement, gives the following account. "I began with one male and female only. The male was white, but

What is said of the Hare when tamed ?

How does the Rabbit differ from the hare ? Among tame Rabbits, what influence does the old one seem to have ? What anecdote is related to show this ?

the descendants were of various colours. I was surprised to see how much the whole progeny were obedient to their common parent.

210. "Whenever they quarrelled with each other, he instantly ran among them, and then all was instantly reduced to peace and order.

211. "If he caught any one in the fact, he punished him as an example to the rest. Having accustomed them to come to me with the call of a whistle, the instant this signal was given, I saw him marshalling them up, leading them the foremost, and then suffering them all to file off before him."

THE GUINEA-PIG.

212. This animal is a native of Brazil, but it lives and thrives, with a little attention, in almost every clime. It is less in size than a rabbit, but it bears some resemblance to it. It is of different colours, white varied with orange and black, in irregular patches. It has large and broad ears, and no tail.

213. Great numbers are kept in a domestic state, it being a pretty-looking, harmless and cleanly animal. It is, however, void of attachment even to its own offspring, which it will suffer to be devoured without making any resistance.

Of what country is the Guinea-Pig a native? Why is it kept in a domestic state?

214. So cleanly are Guinea-Pigs, that much of their time is spent in licking and smoothing the fur of each other, and of the little ones ; and should the latter happen to be dirtied, their mother will never again suffer them to come near her.

THE COMMON SQUIRREL.

215. THE Common Squirrel, also called the Red Squirrel, is found in almost all northern and temperate latitudes. Though in its nature wild, it is gentle and harmless, and is universally admired for the elegance of its form, and its wonderful agility. It will easily leap from one tree to another at the distance of thirty or forty feet. It usually lives in woods, and makes a nest of moss and dry leaves, in the hollow of trees.

216. Its food consists of fruits, nuts and acorns, of which it accumulates great stores for winter provision, and secures them carefully near its nest,

What is said of its cleanliness ?

Where is the Common or Red Squirrel found ? What is it admired for ? What does its food consist of ?

never touching them while it can find food elsewhere. In the summer it feeds on buds and young shoots, and is particularly fond of the cones of the pine-trees.

217. It is said that, in their migrations, in some countries, these little animals, when they come to a stream which they wish to pass, provide themselves with a piece of bark, and embark upon it as in a boat. The Squirrel then raises his tail for a sail, and, paddling with one foot, directs his bark to the opposite shore. Sometimes, however, a gust of wind causes his shipwreck.

THE FLYING SQUIRREL.

218. **THIS** species is a native of North America. What distinguishes it from the other kinds of squirrels is, the formation of the skin, which extends from the fore to the hinder feet; so that, when its legs are stretched out, the skin is extended between them, enabling the animal to remain buoyant in the air, so as to make a leap of a hundred yards or more. It can only leap from a higher to a lower situation.

What is said of their method of crossing streams ?

Where is the Flying Squirrel found ? What distinguishes it from other Squirrels ?

THE GRAY SQUIRREL.

219. **THIS** species is of the size of a young rabbit. Its colour is an elegant pale-gray, except on the under parts of the body, which are white. It is found in the northern parts of Europe, and is exceedingly abundant in North America. It migrates from place to place, where it can find food in the greatest plenty. In those seasons when nuts and acorns are abundant, our forests are filled with these animals, and they afford much sport to the huntsman.

THE GROUND SQUIRREL.

220. **THIS** Squirrel, which is also called Striped Squirrel, from the stripes on its back, and Chirping

What is the size and colour of the Gray Squirrel? Where is it found in great abundance?

Squirrel, from the sound of its cry, is very numerous in this country. It lives principally in the woods, but is often seen running on the fences by the roadside, affording amusement to the passing traveller.

221. It burrows in the ground, and makes two entrances to its habitation; that if one should be stopped up, it may have access by the other. Its hole is formed with great skill, having several branches from the principal passage, each of which is terminated by a store-house for its food; one contains acorns, another corn, and a third chestnuts, which are its favourite food, and of which it sometimes collects several quarts.

THE ARMADILLO.

222. THE Armadillo is a native of South America. It is covered with a strong crust or shell, and the different varieties are distinguished from each other by the number of flexible bands of which it is composed. It is harmless and inoffensive; lives in burrows under ground, and feeds on roots, fruits, and other vegetables.

Where is the Ground Squirrel numerous? How does it form its habitation, and store its food?

What country is the Armadillo a native of? What is said regarding its shell, disposition, manner of living, and food?

223. It grows very fat, and is greatly esteemed by the Indians for the delicacy of its flesh. The Indians hunt it with small dogs, trained for that purpose. If it cannot reach its hole, it attempts to make a new one, which it does with great expedition, having very strong claws on the fore feet, and in this way sometimes escapes.

224. If no other means of safety be left, it draws its head and extremities within the covering of its shell, and in this situation it sometimes escapes by rolling itself over the edge of a precipice, in which case it generally falls to the bottom unhurt.

THE LAND TORTOISE.

225. THE Land Tortoise is found in all the countries bordering upon the Mediterranean, and in many parts of this country. From its defensive armour, we are induced to place it among the armed quadrupeds, although Linneus considers it as belonging to the order of reptiles.

226. It is nine or ten inches in length, covered with a strong shell, which is capable of supporting the pressure of a wagon wheel without breaking.

How does it sometimes escape when hunted by the Indians?
What is said of the size and shell of the Land Tortoise?

Its principal food is lettuces, dandelions, and plants of a milky nature, also fruits, worms, and insects.

227. The Land Tortoise is particularly remarkable for its longevity, being known to exist upwards of a hundred and twenty years, and is so tenacious of life that it will live months after its brains have been extracted.

THE PORCUPINE.

228. THE Porcupine is found in Africa and the East Indies. It is about two feet long, and fifteen inches in height. The upper part of its body is covered with quills, which are about the thickness of those of a goose, but sharp and tapering at both ends, and capable of inflicting a mortal wound.

229. Some naturalists have asserted, that it discharges these weapons into the bodies of animals it wishes to attack; but this opinion is erroneous, for experience proves that the quills are immovable, and that the Porcupine uses them merely as a defence.

230. Its real mode of attack is by lying down on one side, and suddenly rising when the enemy comes

What does the Land Tortoise feed upon? What is it particularly remarkable for?

Where is the Porcupine found? What is its size, and what is it covered with? What have naturalists asserted regarding its quills that is erroneous? What is its real mode of attack?

nigh, or by turning round and running backward at him. When roused in self-defence, even the lion dare not assail him. He kills serpents by forming himself into a ball, and then rolling his quills over them.

THE HEDGEHOG.

231. IN its quills, this animal resembles the porcupine, but is much less in size, varying from six to ten inches in length. The head, back, and sides, are covered with quills; but the nose, breast, and belly, with fine hair. The tail is about an inch long, and is so concealed by the quills as to be scarcely visible.

232. The Hedgehog defends itself from attack by rolling itself up like a ball, exposing no part of the body that is not covered with these sharp weapons; thus tiring out the patience of its adversaries. It generally lives in hedge-rows or thickets; and in winter wraps itself up in a warm nest of moss, and sleeps out the cold season..

How does it kill serpents?

How does the Hedgehog differ from the porcupine? How does it defend itself? In what places does it generally live, and how does it exist in winter?

THE ANT-EATER.

233. **THIS** animal is a native of South America, and it lives wholly on ants and other insects. The tongue, which is the only instrument with which it seizes its food, is long, wormlike, and covered with a glutinous moisture. Having cautiously placed itself in a favourable situation by an ant-hill, it thrusts out its tongue to its full length. The ants, delighted with its slimy and glistening appearance as it lays stretched in the sun, crowd upon it in great numbers. When the Ant-eater thinks there are enough, he suddenly draws in his tongue, and devours the whole of them in an instant.

234. The Ant-eater is covered with coarse and shaggy hair. Its motions are slow, but it swims well. Its legs are so strong, that few animals can extricate themselves from its gripe. It will fix itself upon a panther so firmly, that both of them fall and perish together ; for it will not relinquish its hold even after it is dead.

What country is the Ant-eater a native of ? In what way does the Ant-eater obtain its food ? What is said of its hair motions, and the strength of its limbs ?

THE ORANG-OUTANG.

235. THE Orang-Outang, which is a native of the East Indies and Africa, is the largest of the ape species; and from the similarity of its external appearance to the human form, it has sometimes been named the Wild Man of the Woods. It has, however, a flatter nose, and a more oblique forehead. The eyes, also, are much nearer together, and the nose and mouth farther apart.

236. Those which have been brought to Europe have not exceeded three feet in height; but the largest are about six feet high, and possessed of such strength, that one of them can overpower the strongest man. They are exceedingly swift, and go together in companies; and if they happen to meet a man remote from succour, they show him no mercy.

237. They even attack the elephant with clubs, and compel him to leave that part of the forest which

Of what countries is the Orang-Outang a native? Why has it been called the Wild Man of the Woods? What is said of its size, strength, and speed? How does it attack the elephant?

they claim as their own. They feed on fruits, vegetables and roots. The Orang-Outang may be tamed, and he then displays much sagacity, and closely imitates the manners and actions of those with whom he resides.

238. "I have seen it," says Buffon, "give its hand to show the company to the door: I have seen it sit at table, unfold its napkin, wipe its lips, make use of the spoon and fork in eating, pour out its drink, take a cup and saucer, put in sugar, pour out its tea, leave it to cool before drinking, and all this without any other instigation than the signs or the command of its master, and often of its own accord."

239. In the account of an Orang-Outang, which was conveyed from Borneo to England in the ship *Cæsar*, it is related, that "he was allowed to wander freely about the ship, and soon became familiar with the sailors, and surpassed them in agility. They often chased him about the rigging, but he always managed to escape.

240. "From the boatswain of the ship, who shared his meals with him, he learned to eat with a spoon; and he might be often seen sitting at his cabin door, enjoying his coffee, quite unembarrassed by those who observed him, and with a grotesque and sombre air, that seemed a burlesque on human nature.

241. "It was his custom to rifle every body's pockets in search of something to eat. For drink, he preferred coffee and tea, but would readily take wine, and exemplified his attachment to spirits by stealing the captain's brandy bottle.

242. "He commonly slept at the mast-head, after

What do they feed upon? When tamed, what qualities does it display? What does Buffon relate of an Orang-Outang? What is related of one that was conveyed from Borneo to England?

wrapping himself in a sail. If all the sails happened to be set, he would hunt about for some other covering, and either steal one of the sailors' jackets or shirts that happened to be drying, or empty a hammock of its blankets."

THE LONG-ARMED APE.

243. THE Long-armed Ape is a native of the East Indies. It is three or four feet in height, and feeds on fruits, leaves, and the bark of trees. It derives its name from the extraordinary length of its arms, which reach to the ground when it is upright.

244. Its face is flat, and of a tawny colour, surrounded with a circle of bushy hair. Its eyes are large, and sunk in its head, and its ears well proportioned. It walks erect, and is without a tail.

Of what country is the Long-armed Ape a native? What is its size? What does it feed upon? From what does it derive its name? Describe its appearance.

THE RIBBED-NOSE BABOON.

245. THE Baboon is found in the hottest parts of Asia and Africa. It differs in many respects from animals of the ape kind. It is from three to four feet high, very strong built in the upper parts, but slender towards the middle. It is covered with long, thick hair, of a reddish-brown colour, and most commonly walks on all fours.

246. Its strength is so prodigious that it can easily overpower two or three men who are not provided with weapons, and its disposition is so savage that it must always be kept closely confined, when in a state of captivity. Even then, it will sometimes shake the bars of its cage so violently as to excite the utmost terror in the spectators.

247. In their native countries, these animals sometimes assemble in great numbers to plunder gardens and cultivated grounds. They are very dexterous in throwing the fruit from one to another, and in this way do much damage in a short time.

Where is the Baboon found? Describe its external appearance. What is said of its strength and disposition? What mischief do they do in their native countries?

248. The Ribbed-Nose Baboon, also called the Mandrill, is found on the Gold Coast and other parts of Africa. It is so called from a narrow, blood-coloured ridge, which extends down the middle of the face, and terminates in the nose. It is the largest of the Baboon tribe, and the most frightful.

249. The hair about the neck is very long; and that upon the body is of a bluish colour. The cheeks, greatly swollen and deeply furrowed, are naked, and of a deep blue colour. It is remarkable for its immense strength and savage disposition; for no art or kindness can in the least subdue its brutal propensities.

THE COMMON MONKEY.

250. MONKEYS are found in great abundance in all tropical climates. There are innumerable varieties of them, all smaller than the baboon, and less capable of doing mischief. When taken wild from the woods, they are easily tamed, though they must

Where is the Ribbed-Nose Baboon found? Why is it so called? How does it compare with other Baboons in size and appearance? Describe its external formation and colour. What is it remarkable for?

Where are Monkeys found? What is said of their numbers and variety? Are they easily tamed?

frequently be corrected to keep them in proper subjection.

251. The negroes consider the monkeys as an absolute pest; for they do great damage in the corn-fields, and to the sugar-canes and rice. When plundering, they place a sentinel to give notice of the appearance of an enemy; upon which they drop all but what they can carry in their left hand, and scamper away upon the three legs which they have left.

252. They are very fond of oysters, and the moment these cunning little animals perceive the shells of the oyster extended, they instantly slip a stone between them, to prevent them from being closed, and take the fish out with their hand. They sometimes annoy travellers in the woods by throwing dirt and clubs at them.

253. It is said that these animals are masters of the forest where they reside. Neither the lion nor the tiger venture to dispute the dominion; and the serpent is the only animal that ventures to oppose this mischievous race. The larger snakes wind up the trees where the Monkeys reside, and, if they happen to find them asleep, swallow them whole.

254. Monkeys are noted for their mischievousness, and for the performance of many amusing tricks. They are very easily taught to imitate man in riding, dancing, &c.; but their performances of this kind are too well known to be described here.

Why do the negroes consider them a pest? How do they contrive to eat oysters? What is the only animal that attacks the Monkey with success? What are Monkeys noted for?

THE STRIATED MONKEY.

255. THIS species, which is one of the prettiest of the Monkey kind, does not exceed twelve inches in length. Its tail is long, and marked with alternate rings of black and ash colour ; the ears are large, and of the human form ; and the body of a reddish-ash colour, slightly undulated with dusky shades.

256. It is a native of Brazil : it feeds on fruits, vegetables, insects, and snails, and is fond of fish, and spiders, and their eggs. It may be rendered very tame, but is a great enemy to cats.

THE BAT.

257. AT first sight, we should be led to rank the Bat among the class of birds. It has, however, nothing but its wings that bears resemblance to the

Describe the Striated Monkey. Where is it found ? What does it feed upon ?

bird species ; its hair, teeth, habits, and formation, all combining to rank it among quadrupeds.

258. It is about the size of a mouse, or two inches and a half in length. The membranes, commonly called wings, are nothing but an extension of the skin all round the body. When the animal flies, the skin is stretched by the four inner toes of the fore feet, which are enormously long, and serve to keep it spread. It is covered with short fur ; the eyes are very small, and the ears resemble those of a mouse.

259. It flies in the evening, never venturing out by daylight, and frequents the sides of woods and shady walks. In the daytime it remains concealed in some hollow tree, or in the crevices of some dilapidated building. In the winter it lies in a state of torpidity.

260. The Vampyre, a species of Bat, is found in the East Indies and New Holland. It is about a foot in length, and its wings sometimes expand to the width of four feet. The head bears a resemblance to that of a fox, and the tongue is pointed, and terminated with sharp prickles.

261. To the Vampyre is ascribed the practice of sucking the blood of those who sleep in exposed situations. While sucking the blood, it continues to fan the air with its wings in such a manner, that the refreshing breeze lulls the sufferer into a still deeper sleep, so that the wound is not felt. Many wonderful stories have been related of the Vampyre, but we believe no persons have ever been seriously injured by it.

Why should the Bat be ranked among quadrupeds ? How are its wings formed ? Where does it stay during the day, and how exist during the winter ?

Where is the Vampyre found ? Describe the Vampyre. What practice is ascribed to the Vampyre ?

THE WEASEL.

262. **THE Weasel** is an active and handsome little animal, about seven inches long. Its colour is a reddish-brown, but delicately white under its throat and belly. It has a bushy tail, which measures about two inches and a half. Its eyes are small and black, its ears roundish, and its nose is furnished with whiskers, like those of a cat.

263. In the evening, it is seen stealing from its hole, and creeping about the farmers' yards in quest of prey. It destroys rats, mice, poultry, pigeons, rabbits, and lambs; it also sucks eggs. It seizes its prey by the back of the neck, and sucks the blood.

THE POLECAT.

264. **THIS** animal is fifteen or sixteen inches in length, of a deep chocolate colour. In summer he

Give a description of the Weasel. What does it feed upon?
How does it seize its prey?

Describe the Polecat.

lives in woods, in burrows about two yards deep; but in winter he haunts barns, haylofts, and out-houses, where he sallies forth upon the poultry.

265. The Polecat is very destructive to young game of all kinds. Despatching the victim with a single wound in the head, it first satiates itself with copious draughts of blood, and then carries off the prey. They are very fond of honey, and often attack the hive, and drive away the bees. It does much more mischief than the weasel.

THE MARTIN.

266. THE Martin is rather longer than the polecat; it also has a longer and more bushy tail; its colours are more elegant; and its scent is considered a most agreeable perfume. Its head is small, and finely formed; its eyes are lively; its ears are broad and rounded; and it is covered with a fine, downy fur, intermixed with hair. Its claws are sharp, and well adapted for the purpose of climbing.

267. Martins are found in all northern regions, where they are hunted for their skins, which are

Where does it live in summer, and where in winter. What is it very destructive to?

Describe the Martin. Where are Martins found? What are they hunted for?

valuable, and much used in the manufacture of muffs, tippets, and other articles of comfort. Many thousands of their skins are annually exported from Canada and Hudson's Bay.

THE ICHNEUMON.

268. THE Ichneumon stands at the head of the weasel tribe, and formerly divine worship was rendered to it by the Egyptians, on account of the service it gave them in destroying serpents, crocodiles' eggs, and all kinds of vermin. It varies from two to three feet in length, and is of a reddish-gray colour.

269. It is strong, bold, and active, and may easily be domesticated. It will attack and devour every creature it can overcome. It eats rats, mice, birds, serpents, lizards, and all kinds of insects. Its courage equals its voracity, for it fears not the dog or the cat; neither the claws of the vulture, nor the venom of the serpent.

270. If we consider the number of eggs which the crocodile lays in the sand at a time, which often

Why was the Ichneumon deified by the Egyptians? What are its size and colour? What is said of its strength, courage and activity?

amount to three or four hundred, we have reason to admire this little animal's usefulness, as well as industry, in destroying them, since otherwise the crocodile might be produced in sufficient numbers to overrun the earth.

THE CIVET.

271. THE Civet is a native of the warmest climates, such as Guinea and the central parts of Africa, but can be raised in temperate, and even cold countries, if fully defended from the injuries of the air. Great numbers are raised in Holland, where the inhabitants profit largely by the perfume.

272. The perfume of the Civet is very strong. It is taken from a pouch near the tail, and is of the colour and consistence of pomatum. That of Amsterdam is reckoned the purest; the people of other countries adulterating it with gums and other matters.

273. The Civet resembles animals of the weasel kind in the slenderness of its body, the shortness of its legs, and softness of its fur; but it differs from them in its superior size, being more than two feet

Why have we reason to admire the Ichneumen?

Of what climates is the Civet a native? Where is it raised in great numbers? What is said of its perfume? How does it compare with the weasel?

long, and also in the formation of its nose, and the length of its tail. Its colour is commonly an ash, spotted or streaked with black.

THE RACCOON.

274. **THIS** animal is found abundantly in North America. He makes his habitation in hollow trees, or in the clefts of the rocks, and feeds upon corn and various kinds of fruits. He is about two feet long ; his fore feet are shorter than the hinder ; and his fur is long and thick, blackish at the surface, and gray towards the bottom.

275. He climbs trees with facility, and sports among the branches with as much ease and safety as if he were on the ground. He may be tamed, and then he is sportive and mischievous as a monkey. Of ill treatment he is extremely sensible, and never forgets or forgives an injury. His fur is much used in the manufacture of hats.

Where is the Raccoon found ? Where does he dwell, and what does he feed upon ? Describe his external appearance. What is said of his activity, and of his nature, when tamed ? What is his fur used for ?

THE RAT.

276. THIS troublesome animal is found wherever man resides. It is not from the largest animals that we receive the most injury. The smaller tribes, from their numbers and perseverance, are much more annoying than the larger. The Rat is one of the greatest nuisances among the race of quadrupeds.

277. They multiply with great rapidity, and, were they to remain unmolested, the progeny of a single pair would in two years be swelled to more than a million. Fortunately, they have numerous enemies, and the human race are no more prone to spare a Rat than a snake.

278. On board a man-of-war, they have been known to consume a hundred weight of biscuits daily. The Isle of France was once abandoned on account of their immense swarms, and, even now, they are a severe scourge to it. Rats often discover much sagacity and cunning, as appears from the following anecdote.

279. "At Amsterdam lived a man who was curious in keeping fowls. One of his hens, in the midst of summer, had several days stopped yielding her

What is said of the Rat? What is mentioned to show their voracity on board of vessels? Why was the Isle of France once abandoned? What curious anecdote shows their sagacity and cunning?

usual produce, and yet made her usual cackling ; he searched the nest, but could not find even the shell of an egg, which made him resolve to watch her closely.

280. " Accordingly he placed himself in a good situation to observe her. No sooner had she left the nest, than three rats appeared. One of them immediately laid himself on his back, while the others rolled the egg upon his belly, which he clasped between his legs, and held it firm ; the other two laid hold of his tail, and gently dragged him out of sight."

THE MOUSE.

281. THE Mouse is an animal equally mischievous, and equally well known with the rat. Timid, cautious, but active, all its dispositions are similar to those of the rat, except with fewer powers of doing mischief. Fearful by nature, but familiar by necessity, it attends upon mankind, and comes an unbidden guest to his most delicate entertainments.

282. It has many enemies, and is saved from extinction only by its amazing productiveness. It is usually found in the closet, or wherever food is kept, and does great damage in the granaries and store-houses of the farmer.

What is said of the Mouse compared with the rat ? What preserves it from extinction ? Where is it usually found ?

THE MUSK RAT.

283. **THIS** animal is exceedingly abundant in this country. It is about as large as a rabbit, and has a thick, short head; its hair is soft and glossy, beneath which there is a thick, fine down, very useful in the manufacture of hats.

284. Its manners somewhat resemble those of the beaver. It is fond of the water, and swims well. At the approach of winter, several of them unite and build little huts, about two feet in diameter, composed of rushes cemented with clay.

285. From these there are several passages, in different directions, by which they go out in quest of food. They are caught in summer by setting traps along the edges of the streams which they frequent.

THE MOLE.

286 **THIS** little animal is admirably formed for

Where is the Musk Rat found in great abundance? Describe its appearance, and its manner of living.

its habits of underground life. Its snout, resembling that of a hog, is fitted for rooting in the ground in search of insects, which are its chief food. Its legs are so short that the feet, which resemble hands, seem to grow from the body. The fore feet have great strength, to enable the animal to dig its subterranean passage, and the hind feet are calculated to throw back the dirt.

287. Its eyes are so small as to be hardly discernible; and, though it has no external ears, it is said to possess the faculty of hearing in an eminent degree. The body is thick and round, and has a very short tail. It is covered with an exceedingly fine and beautiful fur.

288. When it has once buried itself in the earth, it seldom stirs out, unless, in pursuit of prey, it happens to come too near the surface, and gets in the open air. In general, it chooses the softer grounds, beneath which it can travel with facility, and in which it finds the most ample supply of worms and insects.

THE CROCODILE.

289. THE Crocodile abounds in Africa, and in

Describe the formation of the Mole, its snout, its legs, its eyes, its fur. How does it live?

Where does the Crocodile abound?

some parts of Asia, and was an object of worship with the ancient Egyptians. It is by far the most daring and ferocious of amphibious animals, seizing with avidity any animals that come within its reach, not sparing even man.

290. Its size is enormous, sometimes exceeding twenty-five feet in length. The upper parts of its body are covered with a sort of armour, resembling the most curious carved work, sufficiently strong to repel a musket ball. Its mouth is furnished with two rows of formidable teeth. Its eyes are large and fiery, projecting out of the head, but immovable, so that it can only see directly before it.

291. It is only in the water that the Crocodile can exert its full strength. Conscious of this, it seldom leaves the water, except when pressed by hunger, or to lay its eggs. These it deposits in the sand, to the number of eighty or a hundred. They are hatched in about thirty days, and the young one is about seven or eight inches long.

292. The Alligator of America is closely allied to the crocodile of the East; the principal difference between them being, that its head and part of its neck are much more smooth than those of the Crocodile, and that its snout is more wide and flat, and more rounded at the extremity. The usual length of the American species is seventeen or eighteen feet.

293. The ponds, lakes, and rivers of the warmer parts of America are literally full of these animals. Their usual motion when on land is slow and sluggish. They seize their prey by giving it a tremen-

What is its character? Describe its size and appearance. Where can it best exert its strength? How are its eggs hatched? Compare the Alligator with the Crocodile.

dous blow with the tail, which throws it within reach of their extended jaws.

294. When autumn has heightened the colouring of the foliage of the woods, the Alligators leave the lakes to seek for winter quarters, by burrowing under the roots of trees, or covering themselves with earth. At this time they are very stupid and inactive, and it is not at all dangerous to sit or ride on them. They are then killed in great numbers with an axe.

THE HIPPOPOTAMUS.

295. THIS uncouth and unwieldy creature lives in the neighbourhood of some of the largest rivers in Africa. Whenever he is surprised, he plunges into the water, and walks about on the bottom, rising to the surface once in about ten minutes to breathe.

296. He is not of a ferocious nature. In fact, he never appears to be the aggressor, except when annoyed or wounded. In the latter case, he will furiously attack boats or canoes, and often sink them by

What places does it resort to in the autumn ?

Where does the Hippopotamus live ? In what case does he attack boats and canoes ?

biting large pieces out of their sides. They sometimes are very destructive to the plantations near the river, by eating and treading down the crops.

297. The Hottentots eat the flesh of this animal after it has become putrid. Professor Thunberg states, that he one day passed a Hottentot's tent, which had been pitched for the purpose of eating the body of a Hippopotamus, that had been killed some time before. He says that the inhabitants of the tent were in the midst of such stench that the travellers could hardly pass them without being suffocated.

THE GREAT MORSE.

298. THIS is a large animal, often measuring eighteen feet in length, and ten or twelve in circumference. Its eyes are diminutive, and its legs short. It has two great tusks proceeding downwards from the upper jaw. These tusks assist the animal in scraping shell-fish out of the sand, in climbing the ice-islands, and in contending with its enemies

How do the Hottentots eat its flesh ?
Describe the Great Morse.

299. The Great Morse is found in great abundance on the northern coasts of America. It is of an inoffensive disposition, unless when provoked, in which case it becomes truly formidable. On being wounded, it has been known to dive beneath the surface, and rise again with a multitude of others, to attack the boat from whence the injury was inflicted.

300. The tusks of this animal weigh from ten to thirty pounds each, and are used as ivory; the fat furnishes from one to two barrels of oil; and the skin is capable of being manufactured into a strong and elastic leather.

THE SEAL.

301. In some respects the Seal resembles a quadruped, in others it seems to approach the nature of a fish. It has a large, round head; the body is thickest where the neck is joined to it, and from thence tapers towards the tail, like a fish. The feet are covered with a membrane so as to resemble fins, but their claws show their proper analogy.

Where is it found in great abundance? When does it become formidable? What uses are made of its tusks, fat, and skin? Describe the Seal.

302. These animals vary from four to nine feet in length. They also vary in colour, some being black, others white, some spotted, and many yellow. Their food consists of fish, which they are very expert in catching. Seals are taken for the sake of their skins and oil.

303. The Icelanders believe them to be the offspring of Pharaoh and his host, who were converted into Seals on their being overwhelmed in the Red Sea. Were it not for these animals, the Greenlander could not inhabit his rigid clime, as it is principally from them that he derives the necessaries of life.

THE OTTER.

304. THE common Otter is of a deep brown colour, and is usually about two feet long; the head and nose are broad and flat; the neck is short, and the body long; the tail is broad at the insertion, but tapering to a point; the eyes are small, and situated very near the nose; the legs are very short, and so placed that they can perform the office of fins.

What are Seals taken for? What do the Icelanders believe concerning them? Of what importance are they to the Greenlander?

Describe the common Otter.

305. This animal is found by the sides of lakes and rivers. It displays great sagacity in the formation of its retreat. It makes the entrance under water, burrows upwards, provides several cells to retire to in case of floods, and opens on the surface a small orifice for the admission of air, which orifice it contrives so as to be concealed by a thick bush.

THE BEAVER.

306. **THIS** animal is found in the northern parts of Europe, Asia, and North America. It has a broad, flat tail, covered with scales, which serves it the purpose of a rudder in the water. It has membranes between the toes on the hind feet, but none on the fore feet. It is about two feet long, and one foot high. Its colour is of a light brown, and its fur is very fine.

307. Few animals show a greater degree of sagacity than this. The Beavers assemble in companies of two hundred or more, and form a habitation by the side of some lake or river. They build a sort of mud cottages, for their winter residence, of sticks,

Where is it found? How does it contrive its retreat?

Where is the Beaver found? Describe the Beaver. What is said of its sagacity?

which they cut into proper lengths by means of their teeth, which serve them instead of saws, and of clay, which they carry on their tails, which serve them for both carriages and trowels.

308. These habitations have different apartments, which communicate with each other for the accommodation of the family. Some of them are above, and some below water. The hunters, in the winter season, cut a hole in the ice, and cover it with a net; then, demolishing the Beaver huts, the Beavers plunge into the hole, and are taken in the net.

309. The skins are an important article of traffic, the fur being very valuable and extensively used. Many thousands of them are annually bought of the Indians by the Hudson's Bay and North West Companies, and exported.

Describe the manner of constructing their habitations. How do the hunters take them? What is said of their skins?

NATURAL HISTORY.

PART II.

BIRDS.

THE OSTRICH.

1. THE Ostrich is found only in the torrid regions of Africa. It is the largest of birds, and, in its ap-

Where is the Ostrich found ?

10 *

pearance, somewhat resembles the dromedary. From the head to the ground it measures eight or nine feet. The neck is long and bare; the thighs are large and fleshy; the legs are covered with scales; and the feet are cloven into two toes.

2. The plumage is generally a mixture of black and white. The feathers upon the tail and wings are held in such high estimation, that the bird is hunted principally for the purpose of obtaining them. It possesses such surprising powers of digestion, that it will devour leather, hair, stones, or almost any hard substance.

3. In its movements the Ostrich is surprisingly fleet. Although its wings are too small to enable it to fly, they assist it very essentially while running, and, did it pursue a direct, instead of a circuitous course, the swiftest horse could not overtake it. When exhausted, the poor animal buries its head in the sand, as if it could thus conceal its whole body.

4. "At a French factory at Podor, on the southern bank of the river Niger, in Africa, there were two young Ostriches, nearly full grown, and so tame, that two little blacks mounted the back of the largest, when he began to run as fast as possible, and carried them several times around the village."

Describe its size and appearance. In what estimation are its feathers held? What substances will it devour? What is said of its speed? What anecdote is related which shows its great strength?

THE CASSOWARY.

5. THE Cassowary is a native of the islands of the Indian Ocean, and was first brought from Java by the Dutch. Its neck is shorter than that of the ostrich ; its body is very thick and heavy ; its wings are very small, and covered by the feathers on its back.

6. On the top of the head is a blackish protuberance of bone, somewhat like a helmet. Hence the Cassowary is said to have the head of a warrior. The eye is of a bright-yellow, and, being very large, has a formidable expression.

7. The Cassowary is about five and a half feet long. The head and neck are destitute of feathers, and of a fine blue colour above, and red below. It is a strong and active bird, and has the fleetness of the ostrich. It is, however, very timid, and depends more upon its speed than strength for safety.

Where is the Cassowary found in its native state ? Describe it. How does it compare with the ostrich in speed ? What is said of its courage ?

THE CONDOR.

8. THE Condor is found only in South America. It is the largest bird of flight known, its wings, when expanded, measuring from twelve to eighteen feet, and the feathers, which are of a jet-black colour, are more than two feet long. The beak measures about four inches, and is hooked downwards. The legs are large and strong.

9. Its strength is prodigious. It is able to carry off and devour a whole sheep, and some writers have affirmed that two of them will kill and devour an ox. They commit many depredations among the flocks, and sometimes carry off small children. They are much dreaded by the natives, who adopt various methods to destroy them.

Where is the Condor found? Describe it. What is said of its strength, and what of its voracity.

10. Its courage is equal to its strength and voracity, for it is not only an enemy to the bird and brute creation, but, when violently pressed by hunger, will attack mankind. Fortunately, this rapacious bird is scarce, or its depredations would be a source of great terror.

THE VULTURE.

11. THERE are several species of this bird, the largest of which is the Golden Vulture. This is about four feet and a half long, from the end of the beak to the tail. The head and neck are nearly bare, and the whole plumage is dusky, mixed with purple and green. It is an exceedingly filthy, indolent, and rapacious bird.

What is said of the courage of the Condor ?

What is the size and appearance of the Golden Vulture ? What is its character ?

12. In Egypt there are great flocks of Vultures, which render a most important service to the inhabitants, by devouring all the filth and carrion, which would otherwise render the air pestilential. The ancient Egyptians were so sensible of the utility of this bird, that they made it a capital crime to put one of them to death.

13. In Brazil they are very serviceable by devouring the eggs of the alligator, and thus checking their increase. When the female alligator lays her eggs in the sand by the side of a river, the Vultures watch her motions from some neighbouring forest, and, on her departure, fly to the spot, lay the eggs bare, and devour them whole.

THE GOLDEN EAGLE.

14. The Golden Eagle is the largest and noblest of the Eagle species. As the lion is considered the

What is said of the Vultures of Egypt ? of the Vultures of Brazil ?

“king of beasts,” so the Eagle is allowed to be the “king of birds.” “Magnanimity,” says Buffon, “is equally conspicuous in both; they despise the small animals. and disregard their insults.”

15. The Golden Eagle measures three feet in length from the beak to the tail, and seven and a half between the extremities of the wings. The body is dark-brown, the beak of a deep-blue, and the eyes of a hazel colour. The legs are yellow, strong, and feathered to the very feet, which are armed with formidable claws.

16. “An instance is recorded, in Scotland, of two children having been carried away by two Eagles, who were pursued, and had only time to lodge them in their nest, before they were overtaken; and the little innocents by that means were restored to their affrighted parents without injury.”

17. The Eagle’s nest is usually built on inaccessible cliffs or rocks. Its nest is flat, the basis consisting of sticks five or six feet long, and covered with layers of rushes and heath.

18. The Eagle is a long-lived bird; it is certain that one of them has been confined for a hundred years. It is able to sustain the want of food for three weeks, an abstinence of which few animals are capable.

19. There are numerous species of the Eagle found in various parts of the world; the Black Eagle, which is so powerful as to kill a dog much larger than itself; the Ospray, or Fishing Eagle, and the Bald Eagle.

What rank does the Golden Eagle hold among birds? Describe its size and appearance. What anecdote is related to show its strength? Describe its nest. What is said of its longevity? of its power of abstaining from food? Mention some of the Eagle species

20. The Bald Eagle is common in America. It is smaller than the Golden species, and is of a dark-brown colour, with the head and upper part of the neck white. It has frequent contests with the Osprey; the former endeavouring to deprive the latter of his prey.

THE FALCON.

21. THE Falcon is a native of the cold climates, being found in Russia, Norway, and Iceland. Next to the eagle it is the most formidable, active and intrepid of voracious birds. It boldly attacks, and easily overcomes, the stork, the heron, and the crane.

22. The general colour of the plumage is white, marked and spotted with brown; the legs are pale-blue, and feathered below the knee; the bill is much hooked, and yellow.

23. Before the invention of gunpowder, the Falcon was much used by sportsmen in obtaining game. For this purpose, the Falcon was trained by various arts, so that, when let loose upon any game, it would

What is said of the Bald Eagle?

Where is the Falcon found? What is said of its strength and courage? Describe its appearance. What was it formerly used for?

fall upon it, and by its strength despatch it for the use of its master. As it was considered a mark of distinction, English gentlemen in those times were rarely seen without a Falcon perched upon their hands.

THE BUZZARD.

24. THE Buzzard is one of the hawk species, and measures about four feet and a half from the ends of the wings. The upper part of the body is brown, the lower pale, varied with brown. The bill is short and hooked; the legs yellow; the claws black.

25. Though strong, the Buzzard is so cowardly, that he will fly even from a sparrow-hawk, and so indolent, that he contents himself with the old nest of the crow, rather than construct one. He feeds on rats, mice, and all sorts of carrion.

26. Buffon gives an account of one, "which was tamed by the rector of St. Pierre de St. Belesme, and displayed much of the affection and sagacity of a dog. It was allowed its liberty, and would some-

Describe the Buzzard. What is the character of the Buzzard? What is related of the Buzzard by Buffon?

times fly off to a great distance, but invariably returned.

27. "It would sit by and caress him at dinner, and follow him when he was on horseback. It had a remarkable antipathy to wigs, and particularly to red caps, which it never failed to snatch from the wearers, and deposit in a very high tree, that served as a store-house for its plunder."

THE GOSHAWK.

28. THE Goshawk is one of the largest of the hawk kind, and is found in the northern parts of Europe, Asia, and North America. The head and upper parts of the body are of a deep brown; the lower parts white, with wavy lines of black; the legs are yellow, and the claws black. The tail is longer than the wings.

29. This, as well as other kinds of hawks, is a bird of prey. It feeds on mice and small birds, and eagerly devours raw flesh; it plucks the birds very neatly, and tears them in pieces before it eats them, but swallows the pieces entire.

Where is the Goshawk found? Describe it. What does it feed upon?

THE SPARROWHAWK.

30. THE Sparrowhawk is very numerous in various parts of the world. It is somewhat larger than a common pigeon. It has a short, hooked bill, slender, reddish legs, and rather a long tail. The plumage on the upper parts of the body is brown, spotted with yellow ; on the lower parts whitish.

31. The Sparrowhawk is more easily trained and made docile than most of the rapacious tribes, and, when domesticated, shows great attachment to its owner. In its wild state, it commits enormous havoc among the smaller race of birds.

THE MERLIN.

32. THE Merlin is the smallest of the Hawk kind,

Describe the Sparrowhawk. What is said of it when tamed, and what when wild ?

being but little larger than the blackbird. Small as it is, this bird is not inferior in courage to any of the falcon tribe. It was formerly used for taking larks, partridges, and quails, which it would frequently kill by a single blow, striking them on the breast, head, or neck.

33. Besides the kinds mentioned, there are other varieties of the Hawk; the Henhawk, which commits great depredations in poultry yards, and the Fish-gawk, which preys principally upon fish.

THE OWL.

34. OF the Owl, there are forty or fifty different species, and there is a general resemblance among them all. The head is round, like that of a cat, which animal the Owl resembles in its propensity for destroying mice. The eyes also are so constructed that it can see better in the night than in the full glare of day.

What is the size of the Merlin? What was it formerly used for?
How many species of the Owl are there? In what respects have they a general resemblance?

35. The Great Horned Owl is the largest of the species, and nearly equals in size some of the eagles. It derives its name from two bunches of feathers standing up on each side of the head, resembling horns. Its body is of a tawny-red colour, variegated with brown; its eyes are large; its wings are long; and its legs feathered to the claws, which are large and hooked.

36. It is very affectionate to its offspring, and if they are taken from the nest and confined, it will assiduously supply them with food. This, however, is done in the night, and with such secrecy and sagacity, that it is almost impossible to detect it in the act.

37. The Screech Owl is an elegant species. The upper parts of the body are of a pale-yellow, with white spots; the under parts are entirely white. The legs are feathered to the claws. Its sense of hearing is very acute.

38. It conceals itself during the day in some secure retreat, as a hollow tree, or dilapidated building, and never appears, except during the night. From these cheerless retreats it sends forth its discordant cry, from which it derives its name, and which the superstitious often consider the presage of misfortune or distress.

39. Since the time of Genghis Khan, the Calmuc Tartars have held the Screech Owl sacred, in consequence of one of the species having settled on a bush, under which the prince hid himself from his enemies after a defeat.

40. The pursuers passed the bush, but did not ex-

Describe the Great Horned Owl. What is said of its affection for its offspring? Describe the Screech Owl. How does it live? Why do the Calmuc Tartars consider it sacred?

amine it, as they imagined that a bird would not have perched where a man was concealed.

THE COCK.

41. **THE Cock** was originally a native of Persia, and was imported into Europe many centuries ago. It seems to have been one of the first animals attendant upon man, and exhibits, perhaps, in consequence, a greater variety in plumage and shape than any other bird whatever. So great is this diversity, that it is, perhaps, impossible to find two of them which exactly resemble each other.

42. The tail, which makes such a beautiful figure in most of the species, is entirely wanting in some; and the feathers which usually lie so sleek and regular, are in a peculiar species all inverted, and stand the wrong way.

43. No animal has greater courage than the Cock when opposed to one of his own species, and the brutal diversion of cock-fighting is a favourite sport

What is the native country of the Cock? What variety do the species exhibit in plumage and shape? What is said of his courage?

wherever refinement and polished manners have not entirely taken place. In China, India, and throughout the East, it is delighted in even by kings and princes.

44. The Hen, if well supplied with food and water, will lay more than two hundred eggs in a year, though she seldom hatches but one brood of chickens. In hatching and raising her little brood, nothing can exceed her patience, courage, and affection.

THE PEACOCK.

45. THE Peacock was originally found in India, and from thence has been diffused over the whole world. They were highly esteemed by the Romans ; and the Bible mentions them among Solomon's importations from the East.

46. It is distinguished above all animals for the

What is mentioned concerning the Hen ?

Where was the Peacock originally found ? In what estimation were they held ?

beauty of its colours. On its head is a tuft of twenty-four feathers, having webs only at the ends, painted with the finest green, mixed with gold ; the head, neck and breast are of a deep-blue, glossed with green and gold ; the belly is black, with a greenish hue.

47. Its train, which is the most beautiful part, rises just above its tail, and, when erected, forms a fan of most resplendent hues. The two middle feathers are sometimes four and a half feet long. The cry of the Peacock is loud and very discordant, and is as much inferior in melody, as its plumage is superior in beauty.

48. The Peahen is somewhat less than the cock, and its train and crest are destitute of those dazzling beauties which distinguish the male. It lays five or six eggs, of a whitish colour.

THE TURKEY.

49. TURKEYS appear to have been first found in North America, and were introduced into England in the reign of Henry VIII. They soon became a favourite dish at the English Christmas feasts. In

Describe the Peacock. What is said of the Peahen ?

Where were Turkeys first found ? When were they introduced into England ?

this country they form an indispensable and distinguished part at every Thanksgiving dinner, especially in New England.

50. They exist in great abundance, in a wild state, in many parts of our country, and the hunting of them is considered a great diversion. The Wild Turkey is a migratory bird, and large flocks of them may be seen in the spring passing from the South to the North.

51. The Domestic Turkey will fly from almost every creature that will venture boldly to attack it: even the domestic cock is often able to put them to flight. On the contrary, they pursue every thing that appears to fear them.

THE PHEASANT.

52. THE Pheasant was originally brought into Europe from the banks of the Phasis, a river in Asia Minor, whence it derives its name. It now exists wild in various parts of Europe and North America.

On what occasions are they particularly used? What is said of Wild Turkeys; of the courage of Domestic Turkeys?

What does the Pheasant take its name from?

53. It comes next to the peacock in point of beauty of plumage. The head and neck are of a darkish-green ; the breast, back, and sides, darkish, with purple-tinged eyes, and streaks of gold. The eyes are surrounded with a circle of bright scarlet, with black spots. The tail is eighteen inches long. The most beautiful of the species is the Golden Pheasant of China.

54. History tells us that when Cræsus was seated on his throne, with regal magnificence, he asked Solon, "if he ever beheld any thing so fine?" The Greek philosopher, unmoved by the pageantry around him, replied, "that after having seen the beautiful plumage of the Pheasant, no other finery could astonish his sight."

55. The flesh of the Pheasant is esteemed a great delicacy, and such is the avidity with which they are hunted, that they are prevented from multiplying. The female lays about twenty eggs.

THE GUINEA FOWL.

56. THE Guinea Fowl was originally a native of

What is said of its beauty? What anecdote is related of Cræsus and Solon? How is its flesh esteemed?

Africa, but is now common in this country and Europe. It was in high esteem among the Romans, and is now considered a great delicacy. In their wild state they associate in numerous flocks.

57. It is about the size of the common hen, but, being supported on longer legs, it looks much larger. Its head is covered with a kind of helmet; the back is round, and the tail like that of a partridge. The plumage is black, diversified with white spots. In all their habits they resemble the poultry kind.

THE WOOD-GROUS.

58. THE Wood-Grouse is found in the northern parts of Europe, but principally in the British islands. It is nearly the size of a turkey, and often weighs twelve or fourteen pounds.

59. It is chiefly found in mountainous and wooded situations, but occasionally makes depredations upon

Where was the Guinea Fowl originally found? Describe its size, appearance, and habits.

In what countries is the Wood-Grouse found? What is its size?

corn-fields. It is one of the most timid and vigilant of birds.

60. There are several other species of the Grouse. The Black Loch, or common Grouse, is found only in Scotland. The White Grouse is met with as far north as Greenland. They are also found in heathy mountains or piny forests, at a distance from the haunts of man.

THE PARTRIDGE.

61. PARTRIDGES are generally found in temperate climates, the extremes of heat and cold being unfavourable to them. They are not migrating birds, being found in our forests at all seasons of the year; sometimes, in the winter, buried in the snow.

62. Great numbers of them are killed by the sportsman for the purpose of being served up at table, as they are considered very delicious food.

63. It is ten or twelve inches in length. It has a fine, small head, plump body, and short tail. Its feathers, though not elegant, are pleasing to the eye, consisting of a mixture of light and dark brown.

What is the character of the Wood-Grouse? What other species are named?

Where are Partridges generally found? What are they killed for? Describe the Partridge.

64. Partridges pair early in the spring; the female lays from fourteen to eighteen eggs. The affection of the female for her young is peculiarly strong; if danger approach, she employs various arts to divert it from her offspring.

65. The name of Partridge is applied to different birds in different countries; and even in some parts of the United States, the New England Partridge is styled a pheasant, and the New England quail a Partridge.

THE QUAIL.

66. THE Quail is of about half the size of the partridge. Its feathers are chiefly a mixture of rusty brown, and pale yellow, spotted with black. It has lines of yellow feathers on each side of the head, and on the wings.

67. The Quails of the East are birds of passage, and, in some parts of Europe, prodigious flights have appeared, and thousands have been taken in a very short time.

68. But the Quails of this country remain with us throughout the year, and are often shot by the

What is said of the female's affection for her young?

Describe the Quail. What is said of the Quails of the East and of this country?

sportsman, as they run over the snowy crust among the thickets.

69. In summer, we often hear them, when perched on a fence, or the bough of a tree, sending forth their whistling notes, which, by the foretellers of changes in the weather, are translated into the ominous phrases of "more wet," and "no more wet."

THE RAVEN.

70. THE Raven is the largest of the crow tribe. "As black as a Raven" is an old adage, which was derived from its colour; for it is of a glossy, shining black. It is a large, strong-bodied bird, about two feet in length, and four feet across its wings.

71. In his wild state, the Raven is an active and greedy plunderer. Whether his prey be living or in a putrescent state, he falls to with a voracious appetite, and afterwards flies to acquaint his fellows. His scent is so exquisite that he can discover carrion at a surprising distance.

Describe the Raven. What is said of him in a wild state?

72. He may be tamed, and then his tricks are highly amusing. He teases the poultry, and drives off the dogs, and is very fond of visiting the pantry, where he contrives, when unnoticed, to commit his depredations. He has also a strong propensity to steal money, or any shining substances, and conceal them.

73. "A gentleman's butler, having missed some silver spoons, and other articles, without being able to ascertain in what way they disappeared, at last observed a tame Raven, that was kept about the house, with one in his mouth, and, on watching him to his hiding place, discovered there upwards of a dozen more."

THE CROW.

74. **THIS** species of raven is most common with us, and is so universally known in the United States, that a particular description is unnecessary. It is smaller than the raven, but possesses, to some extent, the same qualities in a wild, and also in a tame state.

What is said of the Raven when tame? What anecdote shows his thievish disposition?

How does the Crow compare with the raven in size and character?

75. The Crow is a great pest to the farmers in the spring season, for he roots up much of the young corn, in order to obtain the kernel on the roots ; and in autumn he strips the husks from the ripe ears, and plucks them.

76. He is a bird of considerable sagacity, and it is almost impossible to approach him with a gun. Even a stick of wood, if pointed towards him in the manner of a gun, will greatly quicken his flight.

77. The Rook is another of the raven species, and is about the size of a crow, which it much resembles in appearance and character. They are very common in England, where they build their nests on the tallest trees, close to each other, frequently in the midst of large and populous towns.

THE MAGPIE.

78. THE Magpie is common in England, and in other parts of Europe. It is about eighteen inches long. The head, neck and breast are of a deep black, while the under parts are of a snowy-white colour. The plumage generally is glossed with green, purple, and blue, which strike the eye in

How does he injure the farmers ? Is he possessed of much sagacity ? What is said of the Rook ?

Where is the Magpie found ? Describe its appearance.

different lights ; and the tail is very long, and wedge-shaped.

79. The Magpie is crafty and familiar, and may be taught to pronounce words, and even short sentences, and will imitate any particular noise which it hears. It is addicted to stealing, like other birds of its kind, and will hoard up provisions. Like the crow, it feeds on animal as well as vegetable substances.

80. It is rarely seen in Norway, but the appearance of one is supposed to portend death. In the north of England, if a Magpie be seen flying alone, it is thought a sign of ill luck ; two forebode something fortunate, three a funeral, and four a wedding.

THE BLUE JAY.

81. THE Blue Jay, which is so common in our woods at all seasons of the year, may readily be distinguished by the beautiful crests of feathers on his head, and by his colour, the upper parts being of a beautiful blue, with considerable white underneath.

82. This bird is continually hopping among the upper branches of some tall forest-tree, and exhibit,

Describe the character of the Magpie. What is thought of it in Norway ? in the North of England ?

Describe the Blue Jay.

ing divers nods, jerks, and other gesticulations. No sooner do you approach him, than he sets up a vehement outcry, and flies off, screaming with all his might. His voice is peculiarly harsh and grating.

83. He seems to take great satisfaction in teasing other birds, particularly the owl, of which he is a great enemy. When he has discovered one, he gathers a flock of his own species around him, and they fall upon the poor owl with such a terrible outcry as to be heard half a mile off, while he returns every compliment with a broad, goggling stare.

84. Mr. Wilson mentions a Blue Jay which was brought up in the family of a gentleman in South Carolina, and which had all the tricks and loquacity of a parrot, pilfering every thing he could conveniently carry off.

85. He answered to his name with great sociality when called on, could articulate a number of words pretty distinctly, and, when he heard any uncommon noise or loud talking, seemed impatient to contribute his share to the general festivity, by a display of all the oratorical powers he was possessed of.

THE THRUSH.

86. THE Wood Thrush, sometimes called the

Mention some of its habits and peculiarities. What does Mr. Wilson relate of a tame Blue Jay?

Wood Robin, is common in every part of North America. He makes his appearance at the North some time in April, and returns to the South about the first of October.

87. The upper part of his body is of an olive-brown, the breast and belly being of a lighter colour, sprinkled with numerous spots of the former.

88. Numbers of them may be seen, at any time in the summer, flitting through the bushes of the moist, woody hollows. This bird is noted for his musical powers. In the dawn of a fine morning in spring, you may hear him piping his few, clear and musical notes, which altogether compose a sweet and delightful song.

THE REDBREAST.

89. THE Redbreast is held in the same estimation in England and the north of Europe that the robin is with us. Its song is the sweetest of all birds, though not possessing great strength or variety.

90. Buffon thus describes its winter manners.

Where is the Wood Thrush common? Describe him. What can you say of his musical powers?

How is the Redbreast looked upon in England?

“In that season,” says he, “they visit our dwellings, and seek the warmest and most sheltered situation; and, if any one happens still to continue in the woods, it becomes the companion of the fagot maker, cherishes itself at his fire, pecks at his bread, and flutters the whole day round him, chirping its slender *pip*.”

THE ROBIN.

91. THIS bird, which is also called the Redbreast, is too well known by every one to need a particular description. It is, however, very different from the Redbreast of England, though both are equally celebrated.

92. The Robin of America is black on the back, while his breast is of a reddish-brown colour. He is a bird of passage, but is very unsettled, continually roving about from one region to another during fall and winter.

93. He is one of our earliest songsters, and, even in March, may be seen hopping over the frozen

How does Buffon describe its winter manners?

Can you give some account of the Robin of America?

ground, or perched upon a post, attempting to utter his song. His notes, though not very musical, are cheering to the spirits, at the opening of spring, and are universally admired.

94. The Robin is respected by all classes of people, few having the hardihood to injure him, and he seems to place much confidence in mankind. Even boys hold his nest sacred, while they will exult in the destruction of a jay's or a catbird's.

THE BLUE BIRD.

95. **THIS** little bird is one of the first messengers of spring, bringing the charming tidings to our very doors. He bears his own recommendation always along with him, and meets with a hearty welcome from every body. His general colour is blue, with a reddish-tinged breast.

96. His usual song is a soft, agreeable, and oft-repeated warble, uttered with open, quivering wings, and is extremely pleasing. He is known to every child, and is of a remarkably peaceful disposition,

What is the character of the Blue Bird? In what estimation is he held?

seldom quarrelling with other birds. Even the boys allow that the Blue Bird does no mischief !

97. Many of the farmers of the United States build a small retreat for him in a tree near the house, and for this he repays them by the cheerfulness of his song, and by the daily destruction of a multitude of injurious insects.

THE KING BIRD.

98. **ALTHOUGH** of so small a size, this bird well deserves his name, for he fears not to attack hawks, crows, and even the bald eagle, and he generally comes off conqueror. The upper part of his body is black, and the lower of a delicate white. His only song is a sort of shrill twittering.

99. In pastures he often takes his stand on the top of a mullein stalk, near the cattle, making occasional sweeps to devour the passing insects and flies

What is said of the courage of the King Bird ? Where is he usually found ?

that trouble them, and then returning to the same station.

100. Though this bird is a source of much good to the husbandman in protecting his corn-fields from the crows, the honey-cultivator considers him a perfect pest, inasmuch as he destroys the bees, and he charges the boys to destroy every King Bird's nest they can find.

THE CAT-BIRD.

101. This bird has but one colour, and that is ash. He derives his name from his song, and should a stranger hear him, he would conclude that some vagrant kitten was wandering among the bushes, so much does his note resemble the cry of that animal.

102. He is a very familiar bird, and often builds his nest in the garden, and never suffers you to pass him without approaching to salute your ears with his well known notes.

103. Yet every body hates a Cat-bird, and not a boy that sees him fails to hurl at his devoted head

How is the King Bird injurious to the farmer ?

From what does the Cat Bird derive his name ? In what estimation is he generally held ?

the first stone he can find. Perhaps this may be accounted for from his habit of plundering every kind of early fruit ; and his mewing and bold-faced familiarity may beget contempt.

104. But certain it is, there is no just cause for his universal persecution, for he seems to place confidence in man, and is by no means so mischievous as many of those birds which are universally admired and protected by every one.

THE MOCKING BIRD.

105. THE Mocking Bird inhabits a considerable part of both North and South America, and he is much more commonly found in the southern than in the northern part of the United States.

106. In extent of vocal powers, this bird stands unrivalled by all the feathered songsters in the world. His voice is full, strong, and musical ; and he derives his name from his faculty of imitating the song of other birds.

Is this estimation just ?

What countries does the Mocking Bird inhabit ? What is said of his vocal powers ?

107. Perched upon a tree in the dawn of morning, you may hear from him, among other sounds, the warblings of the bluebird, the clear, mellow tones of the thrush, and the savage scream of the bald-eagle. A stranger to his variable notes would think himself surrounded with some fifteen or twenty different species of the feathered race.

108. In confinement he acquires many new sounds. You will hear from him the barking of the dog, the mewling of the cat, and the creaking of a wheelbarrow.

109. He imitates a hurt chicken, and the hen hurries about with bristled feathers to protect her offspring; he whistles, and the dog, wagging his tail, runs to his master. His mellow tones are often interrupted, of a sudden, by the cackling of hens, and the shrill notes of the kildeer, and blue jay.

THE BLACKBIRD.

110. **THE** Blackbird is very common in the United States, and well known from the glossy blackness of its plumage. It feeds on worms, snails, &c., and

What sounds does he imitate to great perfection?

What can you relate regarding the Black Bird?

may be seen, in spring, running along the newly ploughed furrows in search of them.

111. During the summer, such large flocks of them are often seen, that they appear like a dark cloud; and when they settle upon a tree, notwithstanding the greenness of the foliage, the predominant colour is black. The note of the Blackbird is sometimes harsh, and at others very clear and shrill, and may be heard at a great distance.

THE CUCKOO.

112. THE head, neck, back, wings and tail of the Cuckoo are of a reddish-brown colour, but the breast and belly are white.

113. Monotonous as its song is, yet it is always heard with a sort of pleasure, as it is sent forth from the thickets; for this bird is so exceedingly shy that he never sings unless in some covered situation.

114. In England, there is a popular superstition that he who hears the Cuckoo before he has heard the nightingale, will be unsuccessful in love. To this Milton elegantly alludes in his Sonnet to the Nightingale.

Describe the Cuckoo. What is said of its song? of a popular superstition in England?

THE RED-HEADED WOODPECKER.

115. THERE are many different species of the Woodpecker, but the one named above is the best known in this country.

116. He is readily distinguished by the bright redness of the plumage on his head, which beautifully contrasts with the fine black of the upper part, and the delicate white of the lower part of his body.

117. His bill, like the others of the species, is straight, strong, and angular, and, at the end, somewhat wedge-shaped, for the purpose of boring trees. He has very strong claws, by means of which he clings to the perpendicular body of a tree, and, leaning upon the hard, stiff, and sharp-pointed feathers of his tail, he bores the wood with his powerful beak.

118. It is a mistaken notion that he injures trees, for he never strikes but a solitary stroke upon live wood, instinct teaching him that he will look in vain for the food, of which he is in search, there; but spends his strength upon that which is dead and decaying, and which forms the habitations of the insects upon which he lives.

What kind of Woodpecker is best known in this country? How is the Red Headed Woodpecker distinguished? Describe his bill, claws, and tail. What is said about his injuring trees?

119. In the summer season he may be seen in every grove, running up the bodies of the trees, and hammering upon the dead branches.

120. His holes in decaying trees serve him a double purpose ; for he excavates them in pursuit of his food, and then they form for him a comfortable habitation, where he deposits his eggs, and rears his young, secure from storms and depredations.

THE WILD PIGEON.

121. THE head, neck, and upper parts of the body of this bird are ash-coloured ; the breast and belly are whitish, with a reddish tinge. There is a crimson mark around the eyes. These birds visit different parts of North America in numbers inconceivably immense. The trees of the forest are often broken down by them, so as to endanger the lives of passing travellers.

122. A traveller upon the banks of the Ohio states, that, one day, " they passed over him in such

Describe the Wild Pigeon. Where are they found in immense numbers ?

numbers that he could not even count the flocks, many of which were amazingly large.

123. "And as he passed on, they continued to increase, so that the air was literally filled with them, and the light of noon-day became dim, as during an eclipse. For several days they were killed in multitudes by the inhabitants with poles and clubs."

124. The Pigeons visit those parts of the country where nuts and acorns are most abundant, and continue there till they are wholly consumed. At such times the inhabitants feed mostly upon their flesh, which is considered excellent food.

125. The Pigeons, for hundreds of miles around, roost in one place. This roosting-place is always selected in a part of the forest where the trees are of great magnitude, and is often several miles in extent. About dusk the Pigeons begin to arrive at the roost, and continue pouring in till late in the evening.

126. The noise which they make with their wings is so great that all conversation in the vicinity is unintelligible, and the report of a gun can be heard but within the distance of a few yards. And though fire arms are discharged upon them, it produces no effect but upon those which are killed.

127. The limbs of the trees are continually snapping, and in their fall kill thousands of the birds. In short, the whole is one continued scene of uproar till towards morning, when for a short time they are quiet. With the first dawn, they begin to move off, and soon the whole forest is still.

128. Then the bears, lynxes, wolves, foxes, and other wild beasts flock in, to partake of the spoil,

Give some account of them as found in the Western States.

which covers the ground ; and after these come eagles, buzzards, crows, and other carrion birds.

129. Were a computation to be made of the number of Pigeons that pass over some parts of the West in a single day, supposing the flock to be a mile in breadth, which is often the case, that they move at the rate of a mile in a minute, and allowing two Pigeons to every square yard, it would amount to one billion one hundred and fifteen millions one hundred and thirty-six thousand.

THE TURTLE DOVE.

130. THE Turtle Dove is smaller than the wild pigeon, and is easily distinguished from it by the yellow iris of the eye, and by a beautiful crimson circle that encompasses the eyelids.

131. The note of this bird is very tender and plaintive. The fidelity of the Turtle Dove to its mate has furnished poets and sentimental writers with the most beautiful allusions ; and it is generally

How is the Turtle Dove distinguished ? What is said of its fidelity ?

asserted, that if a pair be put into a cage, and one happen to die, the other will not survive it.

132. It is very common in this country and in Europe. It arrives at the North early in the spring, and departs about the first of September. It rears only one brood in this country, but in warmer climates it is supposed to breed several times in the course of the year.

THE GOLDFINCH.

133. THE Goldfinch is almost universally known, and is admired for the melody of its note, and the beauty of its colours.

134. It is gentle in its nature ; soon becomes reconciled to captivity, when it shows great intelligence, and may easily be taught a variety of entertaining tricks. In solitude it takes great delight in viewing its own image in a mirror.

Where is the Turtle Dove found ?
Give a description of the Goldfinch.

THE WREN.

135. **THIS** little songster is found in almost every part of the world. It weighs only three drachms, is but four inches in length, and is admired for the loudness of its note, compared with the little body whence it issues.

136. It commonly creeps about hedges or trees, in the vicinity of farm-yards, and sings very late in the evening, though not like the nightingale, after the landscape is enveloped in darkness.

THE BALTIMORE ORIOLE.

137. **THIS** bird, which is also called the Hang-bird, from the method of suspending its nest, and the

What is said about the Wren ?

From what does the Baltimore Oriole derive its different names ?

Firebird, from the bright orange seen through the green leaves like a flash of fire, has the name of Baltimore from its colours, which are black and orange, being those of the arms or livery of Lord Baltimore, the original proprietor of Maryland.

138. This beautiful bird displays great skill in the construction of its nest. The usual materials are flax, hemp, tow, hair, and wool, woven into a complete cloth; the whole tightly sewed through and through with long horse-hairs. It is suspended on the under side of a small twig, commonly in a willow or poplar tree.

139. It is by no means a shy bird, for it hesitates not to build its nest near the dwelling house, and sometimes takes up its residence in the Lombardy poplars that line the streets of our cities, and where its fine song may be heard amid the tumult of coaches, drays, and wheel-barrows.

THE LARK.

140. THE Lark is celebrated for its song, which it commences early in the spring, and continues

Describe the manner of building its nest. Where does it usually take up its residence?

What is the Lark celebrated for?

throughout the summer ; it is chiefly heard morning and evening.

141. Nothing can be more gratifying than to see the Lark warbling upon the wing, raising its note as it soars aloft, then descending with a swell as it comes from the clouds, yet sinking by degrees as it approaches its nest, the spot where all those affections are centred, which have called forth those harmonious strains.

142. The Meadow Lark is the species best known in New England. The colour of the upper part of the body is a brownish-gray, and the breast of a bright-yellow, with a black spot just below the throat.

143. When it flies, it shows a good deal of white above its tail. It is very common in our meadows, seeking its food among the grass, and is an exceedingly shy bird.

THE BULFINCH.

144. THE Bulfinch measures six inches in length, of which the tail constitutes two. It has a short,

What species is most common in New England ? Describe the Meadow Lark.

Describe the Bulfinch.

black beak, strong and crooked, like a hawk, and eyes of a hazel colour: it is a common but handsome bird.

145. In its native state, its tones are harsh and discordant; but when instructed by man, the docile bird will accustom itself to fine, mellow notes, so as sometimes even to surpass its master. It also learns to articulate words and sentences.

THE NIGHTINGALE.

146. It is not by the beauty of his plumage that this universally admired bird has acquired his fame, and become the theme of almost every poet.

147. On the contrary, he is very humbly attired, being on the upper parts of his body of a rusty-brown colour, and below of a pale-ash.

148. But in his song he surpasses all the other choristers of the air, his notes being exquisitely varied, soft and harmonious, and rendered still more pleasing by their being poured forth in the night.

149. In a calm evening, he may be heard to the distance of more than half a mile. This bird is very common in England.

What is said of its faculty for acquiring tones?

What is the appearance of the Nightingale? What is said of his song? Where is he common?

THE SWALLOW.

150. THE Swallow has a very short bill, slightly curved ; it has long wings, and a forked tail. It has a peculiar twittering voice, flies with extreme rapidity, and scarcely ever walks.

151. There are two species common with us ; the Chimney Swallow, which builds its nest in chimneys, and another which suspends its nest in barns and dilapidated buildings.

152. In the spring, when the solar beams begin to rouse the insects from their torpidity, the Swallow is seen returning from its long migrations, and his return is said to be a sure sign that cold weather has ceased.

THE MARTIN.

153. THE Martin is smaller than the Swallow,

I describe the Swallow. What kinds are common to this country ? At what season do Swallows appear ?

and its tail less forked. Its plumage, however, is nearly the same, the upper parts of the body being jet-black, and the under parts white. It would be almost impossible to preserve this bird in confinement, as it feeds entirely on insects.

154. It frequently makes its nest under the eaves or cornices of houses, or more frequently in boxes placed for the purpose. In summer, great flocks of them are always seen upon the steeples of churches, all striving for the highest place upon the very top of the spire.

THE PIED FLYCATCHER.

155. **THIS** bird is nearly five inches in length : the bill is black ; the eyes are hazel ; the forehead is white ; the top of the head, the back and tail, are black.

156. They build their nests in holes of trees ; the parent birds incessantly feed their young with small flies, which they are very expert in catching. From this they derive their name.

Describe the Martin. Where does it make its nest ?
Describe the Pied Flycatcher. Why are they so called ?

THE CANARY.

157. THE Canary was originally peculiar to the Canary Islands, whence it has derived its name. It was introduced into Europe about the middle of the fourteenth century. The plumage is yellow, somewhat mixed with gray. The song is composed of the nightingale's or titlark's notes, the bird in a wild state having no song of its own.

158. The Canary is a social and familiar bird, and is capable of contracting an attachment for the person to whom it belongs. It will perch on his shoulder, and feed from his hand. It is also capable of being taught some extraordinary feats.

159. In 1820, a Frenchman exhibited some in London, which performed several amusing tricks. One of them, taking a slender stick in its claws, passed its head between its legs, and suffered itself to be turned round, as if in the act of roasting.

160. Another balanced itself, and was swung backwards and forwards on a kind of slack rope. A third suffered itself to be shot at, and, falling down

From what country was the Canary first brought? What is said of its song? of its character? What anecdotes are related of it?

as if dead, to be put into a little wheel-barrow, and wheeled away by one of its comrades.

THE LINNET.

161. THE Linnet is universally admired for the melody of his voice ; so much so, that by many persons he is thought to exceed all small birds. If taken young, he may be taught to imitate almost any bird, and, it is said, even words.

162. The Linnet is about five and a half inches in length ; its colour on the back is a dark reddish-brown ; the under parts are of a reddish-white ; the breast is of a beautiful crimson. It builds its nest in a thick bush, and makes a very neat nest.

THE SPARROW.

163. THE Sparrow is one of the most familiar of

What is the Linnet admired for ? Describe the Linnet.

the winged race, being seen around our habitations, and in our gardens and orchards. It is very courageous, and will boldly attack birds ten times larger than itself.

164. It usually builds its nest under the eaves of houses, or in holes in the walls. The affection of the female towards her young is proverbially strong.

THE KINGFISHER.

165. THE Kingfisher is a very beautiful bird. The top of the head and sides of the body are greenish, marked with traverse spots of blue; the tail is blue, and the breast and lower parts of the body are whitish, with a tinge of orange. The bill is near two inches long.

166. This bird is supposed to be the Halcyon of the ancients, who believed that while the female brooded over her eggs, the sea remained unmoved by storms, and thence arose the expression of *halcyon*

What is said of the Sparrow's familiarity? of its courage? of its affection for its young?

Describe the Kingfisher's appearance. What is this bird supposed to be?

days. Cicero wrote a long poem in praise of the Halcyon.

167. The Kingfisher preys on the smaller kinds of fish. It will sit for a long time perched on some dry bough that hangs over a stream, and, when it observes a fish, it will dart down upon it with the greatest velocity and surest aim.

THE CROSSBILL.

168. THE Crossbill is about the size of the lark. Its general colour is reddish, mixed with brown or green upon the upper parts. It is distinguished by the peculiar formation of its bill, the extremities of the upper and under parts crossing each other.

169. This bird is found in northern latitudes, principally in Europe. It feeds upon the seeds contained in pine cones, which it extracts with great dexterity.

What does the Kingfisher feed upon ?

Describe the Crossbill. Where is it found ? What does it feed upon ?

THE PARROT.

170. It is said that the Parrot, of which there are many species, was first introduced into Europe by Alexander the Great. It is one of the most beautiful of the feathered race, its plumage being exceedingly varied, and of the most vivid hues.

171. But its chief attraction is to be found in its ability to utter articulate sounds, a gift which it possesses in far greater perfection than any other bird.

172. "A distiller, who had been greatly injured by the malevolence of an informer that lived opposite to him, taught his Parrot the ninth commandment, which the bird was continually repeating, to the entertainment of those neighbours who were acquainted with the ungenerous part the despicable man had played."

173. Willoughby tells us, that "a Parrot, belonging to king Henry VII., who then resided at Westminster, in his palace by the Thames, had learned many words from the passengers who took water at that place.

By whom is the Parrot said to have been introduced into Europe? Describe it. Relate some anecdotes of it.

174. "One day, sporting on his perch, the poor bird fell into the stream, at the same time calling, as loud as he could, 'A boat! Twenty pounds for a boat!'

175. "A waterman, hearing the cry, made to the place where the Parrot was floating, and, taking him up, restored him to the king. As the bird was a favourite, the man insisted that he ought to have a reward equal to his services, rather than his trouble, and as the Parrot had cried twenty pounds, he said the king was in honour bound to pay it.

176. "The king agreed to leave it to the Parrot's determination; which the bird hearing, instantly cried out, 'Give the knave a groat.'"

THE HUMMINGBIRD.

177. THIS little bird is the smallest and one of the most beautiful of the feathered creation. The feathers on its wings and tail are black; but those on its body and under its wings are of a greenish colour, with a fine gloss, that no silk or velvet can imitate. It presents a beautiful appearance as it flutters over the tube of a flower, sucking its honeyed sweetness.

Describe the Hummingbird.

“ When morning dawns, and the blessed sun again
Lifts his red glories from the eastern main,
Then through the woodbines, wet with glittering dews,
The flower-fed Hummingbird his round pursues;
Sips with inserted tube the honeyed blooms,
And chirps his gratitude as round he roams;
While richest roses, though in crimson dressed,
Shrink from the splendour of his gorgeous breast.

What heavenly tints in mingling radiance fly!
Each rapid movement gives a different dye;
Like scales of burnish'd gold they dazzling show,
Now sink to shade—now to a furnace glow!”

178. It builds its nest on the upper side of a horizontal branch, and lines it with the finest down. The whole nest, which is about an inch in diameter, appears like a mossy protuberance. The bird lays two eggs, of the size of small peas.

THE BIRD OF PARADISE.

179. THE Bird of Paradise is found in the Molucca Islands, and is usually seen upon the wing, at

Can you describe it in verse? What is said of its nest and eggs?
Where is the Bird of Paradise found?

a great height, at a short distance from land. It very seldom alights upon the ground, and from this circumstance and its beauty, it probably derives its name.

180. The head is small, but is adorned with colours which can vie with the brightest hues of the peacock; the body is covered with long feathers of a brown hue, tinged with gold. Two feathers issue from the rump, and constitute the tail.

181. These birds, whose beauty, perhaps, exceeds that of all others, are frequently seen sporting among the delightful and spicy woods of their native countries. Its feathers are much prized by the inhabitants, and some are imported into Europe.

THE TOUCAN.

182. **THIS** curious bird is a native of Guiana and Brazil. It is about twenty inches in length; the bill is six inches long, and near two inches thick at the

What is supposed to be the origin of its name? Describe it.

What countries is the Toucan a native of? Describe its appearance.

base. The upper parts of the body are of a glossy black ; the breast is of a fine orange.

183. The skin of this part the Indians pluck off, and, when dry, glue to their cheeks, and this they consider as an irresistible addition to their beauty. The Toucan shows great courage and skill in defending its nest from every species of attack, particularly that of the monkey.

THE PELICAN.

184. THE White or Great Pelican resembles the swan in shape and colour, but exceeds it in size. The singularity, however, which distinguishes it from all other birds, is in the bill and the great pouch underneath.

185. At the lower edge of the under chap hangs a pouch, capable of containing fifteen quarts of water,

What use do the Indians make of the feathers of the breast ?
What bird does the Pelican resemble ? Describe its pouch.

and reaching the whole length of the bill to the neck: this bag is covered with a very soft and smooth down, and, when empty, is scarcely perceptible, as the bird has the power of wrinkling it up into the lower jaw.

186. These birds are exceedingly torpid and inactive, so that nothing can exceed their indolence but their gluttony; for, were they not excited by the stimulus of hunger, they would always continue in repose.

187. When in search of food, they fly over the water with one eye turned downwards, and, as soon as they see a fish near the surface, dart down with the greatest velocity, and with a most certain aim seize it, and store it up in their pouch.

THE CORMORANT.

188. **THE** Cormorant weighs about seven pounds, and is nearly of the same size as a goose. Its colour

What is said of its character? How does it take its food?
Describe the Cormorant.

is a dirty black, and the body is thick and heavy, more resembling the goose than the gull.

189. They feed voraciously on fish, and possess such astonishing powers of digestion, that their appetite appears completely insatiable. In China, they are brought up tame, for the purpose of fishing. The sportsman always ties a string around their neck, to prevent their swallowing the fish.

THE BLACK AND WHITE GULL.

190. THE largest of the Gull species is the Black and White Gull. It sometimes weighs four pounds, and its wings measure from tip to tip four or five feet ; its wings and the middle of the back are black, the rest of the body is white.

191. Gulls are abundant in all places by the sea-coast, but are most plenty on the rockiest shores : it is there that the Gull breeds, and brings up its young ; it is there that thousands of them are heard screaming with discordant notes for months together.

What do they feed upon ? What are they used for in China ? Describe the Black and White Gull. Where are Gulls abundant ?

192. The Gull usually builds its nest on the ledges of rocks, and lays from one egg to three : its nest is formed of long grass and sea-weed. It defends its young with great intrepidity.

193. Their flesh is fishy-tasted, and is black and stringy ; but it forms a great part of the food of the poor inhabitants of some of the northern islands.

THE STORMY PETREL.

194. THIS bird is not much larger than a swallow ; its legs are long and slender, and its colour is black. It is found in almost every sea, sometimes at a great distance from land, and braves the utmost fury of the storm, sometimes skimming swiftly along the hollows of the waves, and sometimes over their summits.

195. It is also an excellent diver, and follows vessels to pick up any thing that is thrown overboard. By the sailors, who look upon the appearance of these birds as the sure presage of a storm in the course of a few hours, they are called *Mother Carey's Chickens*.

Where does it build its nest ? What is said of its flesh ?
Describe the Stormy Petrel. Where is it found ? What is it
called by sailors ?

THE GREAT AUK.

196. THIS bird is about the size of a goose. The upper part of its plumage is black, and the lower white. It is a very bad walker, but swims and dives well. It is, however, observed by seamen, that it is never seen out of soundings, so that its appearance serves as an infallible direction to land.

197. There is another bird of this description, which is called the *Penguin*, of which there are several varieties. It resembles the former in almost every respect; walking erect, and being very stupid; also in colour, shortness of wings, and rapidity of swimming.

Describe the Great Auk. Where is it seen? What is said of the Penguin?

THE SWAN.

198. THE Swan makes a very indifferent figure upon land, but presents a beautiful and graceful appearance in water. There its motions are graceful and easy, and, with every change of position, every part assumes a new grace. It will swim faster than a man can walk.

199. In England this bird has been rendered domestic. Its colour is entirely white, and it weighs about twenty pounds. It is covered with a soft down under its feathers, which is made an article of commerce.

200. The Swan exhibits much bravery in the defence of its young. A female has been known to attack and drown a fox which was swimming towards her nest: an old Swan can break the leg of a man with a single stroke of its wing.

201. In the reign of Edward IV. of England, Swans were so highly esteemed that none but large

Where does the Swan appear to advantage? Where has it been rendered domestic? What is said of its courage? How was it formerly esteemed in England?

freeholders could possess them, and to touch their eggs was punished by imprisonment. They are now rare.

THE GOOSE.

202. WILD GEESE are seen migrating north and south, over the United States, in the seasons of spring and fall. During the day they never rest, and are seen flying at a great height, in flocks of from fifty to a hundred.

203. The Tame Goose, which is so abundant in our farm-yards, is nothing more than the Wild Goose domesticated. Geese are a source of profit, and are bred for the sake of their quills and feathers.

204. The quills are plucked once a year, the feathers four or five times. The old Geese suffer this to be done quietly, but the young ones are very noisy and unruly.

What is said of Wild Geese? What are Tame Geese valued for?

THE GANNET.

205. THE Gannet is about the size of a tame goose, but its wings are much longer. They abound in the islands of the north coast of Scotland.

206. The Gannet feeds upon fish, and always attends them in their migrations, especially the shoals of herring. When the fishermen observe this bird, they prepare their nets, and take the herrings by millions at a draught.

207. During their fishing, the Gannets rise and sail over the shoals of herrings and pilchards. When they observe the shoal crowded thick together, they close their wings, and precipitate themselves into the water, and never fail to rise with a fish in their mouth.

208. The inhabitants of the island of St. Kilda sometimes take them by tying a herring to a plank, and setting it afloat. The bird darts down, and breaks its neck by its violence.

Where is the Gannet found? What does it feed upon? How are they sometimes taken?

THE DUCK.

209. **THE Wild Duck, or Black Duck**, which is the parent stock of the tame, is very common in all our ponds and streams, and upon the sea-coast in the United States. They are killed by sportsmen in great quantities, and their flesh is considered delicious food.

210. The common Duck, of which there are several different kinds, is too well known to require description. It is the most easily reared of all our domestic animals. The very instinct of the young ones directs them to their favourite element.

211. It is usual to lay Duck eggs under a hen, because she hatches them better than the original parent. The Duck seems to be a heedless, inattentive mother, and frequently leaves her eggs till they spoil.

What is said of the Wild Duck? Is the Tame Duck easily reared? How are Duck eggs sometimes hatched?

THE EIDER DUCK.

212. THE Eider Duck is about twice the size of the common Duck. It is found principally on the coasts of Norway, Iceland, and in many parts of North America.

213. From these birds is produced the soft down so well known by the name of eider or edder down, which is so light and expansive, that a couple of handfulls will fill a down quilt, which is generally used in cold countries instead of the blanket.

214. In the breeding season, the birds pluck it from their breasts to line their nests, and make a soft bed for the young ones. When the natives come to the nest, they remove the superfluous down; and this they repeat two or three times in a season.

215. The Greenland Company at Copenhagen generally export from Iceland about two thousand pounds of this down annually, which is worth two rix dollars a pound.

Where is the Eider Duck found? What is said regarding the eider down?

THE CRANE.

216. THE Crane, of which there are many varieties, belongs to the heron tribe. Birds of this class are distinguished by the length of their legs and bills, and are well adapted for wading, and finding their food in marshes, which they frequent.

217. As they rise from the ground very heavily, they are extremely shy, and seldom let the fowler approach them. During the night, they sometimes make great ravages in fields of grain.

218. The ancients have been particular in their description of this bird, and have thus immortalized its name. From the policy of the Cranes, they say, we may form an idea of a perfect republic.

219. From their tenderness to their decrepit

How are the Crane kind distinguished? What did the ancients say of the Crane?

parents, which they cherish and support with the utmost zeal, we may learn a lesson of filial obedience.

THE STORK.

220. THE White Stork is the most remarkable species, and is about three feet long. Its body is entirely white, except a few feathers on the wings and the orbits of the eyes, which are blackish.

221. In Europe and Asia this bird is semi-domestic, and in many cities is seen stalking carelessly about the streets in search of offal and other food.

222. They clear the fields of serpents and reptiles, and on this account are much esteemed in Holland, and are held in high veneration by the Mahometans.

223. It may be tamed. Dr. Heimann mentions one which he saw in a garden where some children were playing at hide and seek; and says that it run its turn when touched, and so well distinguished the

What is the most remarkable species of the Stork? What are they esteemed for in Europe and Asia? What does Dr. Heimann relate of a tame one?

child whose turn it was to pursue the rest, as to be perfectly on its guard.

THE HERON.

224. THE Heron is remarkably light in proportion to its bulk, as it seldom weighs more than three pounds and a half. Its wings, when expanded, measure five feet from tip to tip.

225. Its bill is about five inches long ; its claws are very sharp and formidable ; yet, though so well armed for war, it is very cowardly, and will fly even from the sparrowhawk.

226. In fresh water the Heron is very destructive to fish, not sparing even the largest. Its appetite is so insatiable that a single Heron has been known to devour fifty fish in a day.

227. Generally the Heron is seen standing by the sides of ponds and lakes, with its long neck sunk between its shoulders, and its eyes anxiously bent upon the pool ; and whenever it sees its prey approaching, it darts upon it with the most certain aim.

Describe the Heron. To what species of animal is it very destructive ? In what situation is it generally seen ?

THE SPOONBILL.

228. THE Spoonbill of Europe is white ; but the American Spoonbill is of a beautiful reddish colour. Its name is derived from its bill, which is six inches or more in length, and of the shape of a spoon.

229. The chief food of these birds is fish, which they often take from other birds in the manner of the bald eagle. They also destroy frogs and snakes in great numbers.

230. For this purpose their bills are admirably adapted, being so large at the ends that these reptiles cannot escape. They are much prized at the cape of Good Hope on this account.

What does the Spoonbill derive its name from ? What does it feed upon ? How is it adapted for feeding on frogs and snakes ?

THE SNIPE.

231. THE Snipe is a migratory bird, and in summer may be seen in our marshes and low grounds, where it finds its food, which consists chiefly of worms and the larva of insects.

232. It makes its nest of dried grass and feathers, in the most inaccessible part of marshes. Its flesh is considered one of the first of feathered dainties.

233. About thirty years ago, these birds were so abundant in the fens of Cambridgeshire, in England, that a single man, in one night, took as many of them in a lash net as were sufficient to fill a hamper.

THE WOODCOCK.

234. THE Woodcock is about as large as a

Describe the habits of the Snipe. What is said of its flesh ?

pigeon, with a bill three inches long. The crown of the head and back of the neck are barred with black, and a black streak runs from the bill to the eyes.

235. It flaps its wings with some noise when it rises, and its flight is quite rapid, but rather low and short ; and its descent is so sudden that it seems to fall like a stone.

236. It feeds on earth-worms, which it draws from the mud by means of its long bill. Its flesh is considered a great delicacy.

THE WATER HEN.

237. THE Water Hen is of that class of birds which naturalists consider as uniting the orders of the waders and swimmers ; for, although they have long legs and necks, like the former, yet, by being furnished with a slight membrane between the toes, they are enabled to swim, like the latter.

238. Birds of the crane kind are furnished with long wings, and can easily change place ; but the

Describe the Woodcock. What does it feed upon ? How is its flesh considered ?

To what class of birds does the Water Hen belong ?

Water Hen, whose wings are short, is obliged to reside always near those places where its food lies.

239. It builds its nest upon low trees and shrubs, of sticks and fibres, by the water side. The eggs are seven in number; the young ones swim the moment they leave the egg, pursue their parent, and imitate all her manners.

THE COOT.

240. THE Coot is a large bird, being about fifteen inches long, and inhabits larger streams, and more remote from mankind, than the water hen. The Coot is often found in rushy-margined lakes. It makes its nest of such weeds as the stream supplies, and places it among the reeds, where it floats on the surface, rising and falling with the water.

241. If the nest happens to be washed into the stream, which is sometimes the case, the bird sits in it, like a mariner in his boat, and with her legs steers into the nearest harbour.

242. Having attained her port, she continues to sit in great tranquillity, and though the water penetrates the nest, she hatches her eggs in that wet condition.

Where does it build its nest? What is said of the young?
Describe the Coot. What is there curious regarding its nest?

NATURAL HISTORY.

PART III.

FISHES.

THE WHALE.

1. THE Whale is the largest animal of which we can give any certain account. The Greenland Whale measures from fifty to eighty feet in length ; those found in the South Seas are said sometimes to measure one hundred and fifty.

2. The head constitutes one third of its whole size ; the eyes are small ; the mouth is extremely wide, and the under lip broader than the upper one.

3. The tongue is very large, and composed of a soft, spongy fat, capable of yielding five or six bar-

What is the size of the Whale ? Describe the different parts of the Whale.

rels of oil. The throat is small for so vast a fish, being seldom more than four inches wide.

4. In the middle of the head are two orifices, through which it spouts water to a great height, with considerable noise. The Whale varies in colour, the backs of some being red, of others black, and of others quite white ; the belly is generally white.

5. Whales are shy and timid, being furnished with no instrument of offence or defence except the tail. When they see a boat approaching, they generally dive ; but sometimes, when in danger, they rush against a boat, and dash it in pieces with one stroke of the tail.

6. Many ships from Europe and the United States are employed in the Whale-fisheries. Each ship carries six or seven boats ; each boat has one harpooner, one man to steer, one manager of the line, and four seamen to row.

7. In each boat there are several harpoons and lances, and a line of about seven hundred fathoms in length. Thus prepared, they attack the Whale.

8. As soon as the Whale is struck with the harpoon, he darts into the deep, dragging along with him the harpoon and the line attached to it. If the line were to become entangled, it would either snap like a thread, or upset the boat.

9. One man, therefore, is stationed to see that the line goes regularly out, and another is employed in wetting the place where it runs out, that the wood may not take fire from the friction.

10. On the Whale's return to breathe, the har-

What is the character of the Whale ? How does it defend itself ? Describe the manner of taking the Whale.

pooner inflicts a fresh wound, till, at length, growing faint from loss of blood, the men venture to approach him, and a long steel lance is thrust into his breast, which soon puts an end to his life.

11. When the carcass begins to float, holes are cut in the fins and tail, and, ropes being inserted, he is towed to the ship, and fastened along side.

12. The blubber is then cut out in large pieces, and hoisted on deck ; these are cut into smaller pieces, and thrown into the hold. After the blubber and whalebone are all taken out, the remainder of the carcass is left to float away, and is devoured by bears and other voracious animals.

13. The affection of the Whale for her young is evinced by the following anecdote. “ A Whale and her young one had got into an arm of the sea, where the tide nearly left them.

14. “ The people on shore soon attacked them with various weapons, and the animals were severely wounded. After several attempts to escape, the old one forced her way over the shallow into the ocean.

15. “ But, though in safety herself, she could not bear the danger that threatened her young one ; she therefore rushed once more to the place, and appeared resolved, if she could not protect it, to share its danger.

16. “ As the tide was then coming in, both were enabled, after many attempts, to make their escape, though not without receiving a great number of wounds in every part.”

What anecdote shows the Whale's affection for her young ?

THE SWORD FISH.

17. This is a large, powerful, and voracious animal, growing to the length of upwards of twenty feet. It is black on the back, and white on the belly. The great peculiarity of this fish is its long, pointed, sword-like upper jaw, which is of a substance like coarse ivory.

18. An inveterate hatred exists between this fish and the whale. Whenever a Sword Fish meets a whale, he instantly assails him. The whale has no means of defence but the tail, the tremendous blow of which the Sword Fish in general avoids, and then plunges his weapon into his adversary.

19. The Sword Fish possesses a wonderful degree of strength. An English man-of-war was struck by one of them on her return from a cruise; the sword passed through one inch of sheathing, three inches of plank, and four inches and a half in the timber: it was broken off by the shock.

20. In the British museum there is also a plank of a vessel which a fish pierced with the whole length of his sword, though he lost his life by the effort.

Describe the Sword Fish. What animal is he particularly hostile to? What is related to show his strength?

THE DOLPHIN.

21. THE Dolphin has a long, narrow and pointed nose, a wide mouth, with the teeth a little separated, so that they interlock when the mouth is shut. It measures nine or ten feet in length, swims with great swiftness, and feeds upon cod, herrings and flat-fish.

22. A shoal of Dolphins will frequently attend the course of a ship for the scraps that are thrown overboard, or the barnacles adhering to their sides.

23. A shoal of them followed the ships of Sir Richard Hawkins more than a thousand leagues. Their gambols on the surface of the water are often very amusing.

24. A Dolphin has been known to spring forward more than twenty feet at a single bound. They are said to change their colour before they die, and again after they are dead. They are found chiefly in the Pacific Ocean.

Describe the Dolphin. Why do they follow ships? Where are they found?

THE PORPOISE.

25. THE Porpoise in its general form resembles the dolphin. It measures six or seven feet in length; its body is thick towards the head, but grows slender towards the tail, forming the figure of a cone. The head has a great resemblance to that of the hog. In each jaw are forty-eight teeth, so placed as to interlock. The eyes are small; the colour of the back is black, and of the belly whitish.

26. Porpoises are very numerous on the coasts of the United States, where they may be seen at all times sporting in the water. Seamen have a superstitious detestation of them, because they believe their appearance to be ominous of approaching storms.

27. One of these fish will yield about a hogshead of oil, and this renders its capture an object of consideration. But they are so shy, and so dexterous in escaping, that it is very difficult to take them.

Describe the Porpoise. Where are Porpoises numerous? What do seamen think of them?

THE SHARK.

28. OF the Shark tribe there are several species, the most formidable of which is the White Shark. He has six rows of teeth, a hundred and forty-four in all : these are hard, sharp-pointed, and of a wedge-like figure. He exhibits an aspect of the deepest, fiercest, and most savage malignity.

29. Sharks swim with great velocity, and are a source of dread to sailors in hot climates, where they swarm about the ships ; and if any of the men have the misfortune to fall overboard, or voluntarily enter the water, they often become the prey of this voracious fish.

30. In the pearl-fisheries of South America, every negro is obliged to carry into the water with him a sharp knife, in order to defend himself against these animals. If the fish endeavours to assault him, he strikes his knife into his belly ; on which it generally swims off.

Describe the Shark. Where are they much dreaded ? How do the divers in the East Indies defend themselves ?

THE STURGEON.

31. **THIS** fish is formidable in appearance, but is perfectly harmless. It varies in length from six to twelve feet. The body is armed from head to tail with five rows of large, bony tubercles ; one of these is on the back, one on each side, and two on the margin of the belly.

32. The snout is long, and obtuse at the end, and has several small tendrils near the tip, which somewhat resemble earth-worms ; and it is supposed to be by this contrivance, that this clumsy, toothless fish gains his food ; for the small fish, mistaking them for what they resemble, come within reach of his mouth, and are sucked in.

33. Sturgeons are abundant both in the European and American seas ; and they may often be seen, as they spring entirely out of the water, and fall upon the side, making a great splashing.

34. At the approach of spring, they leave the sea, and enter the rivers to spawn ; and from May to July the larger American rivers abound with them.

Describe the Sturgeon. How is he supposed to obtain his food ? Where is the Sturgeon abundant ?

THE TORPEDO

35. THE Torpedo, or Electric Ray, is remarkable for some very peculiar properties. The head and body are distinct from each other, and nearly of a circular form ; the skin is smooth, of a dusky-brown colour above, and white underneath. The mouth is small, and there are, on each side below it, fine breathing apertures.

36. The electric or benumbing organs are placed one on each side of the gills ; and each organ is about five inches in length. The fish's torporific quality is one of the most extraordinary faculties in nature. The ignorant stranger might imagine that he is only handling a skate, when he is instantly struck numb.

37. Upon touching the Torpedo with the finger, it frequently, though not always, happens, that the person feels an unusual pain and numbness, which suddenly seizes the arm up to the elbow, and sometimes to the shoulder or head. Its chief force is at the instant it begins ; it lasts but a few moments, and then vanishes entirely.

Describe the Torpedo's appearance. What peculiar property does it possess ?

THE ELECTRICAL EEL.

38. THIS singular eel is common in South America, where it is found in the rocky parts of rivers, far from the sea. It is three or four feet in length, and, in the thickest part, ten or twelve inches in circumference. In colour it resembles the common eel.

39. The shock which it gives is so exceedingly strong, that persons have been knocked down, and almost killed by it. The animal can give a shock at pleasure, and thus stuns its prey, and renders it helpless. The electrical organs consist of two pair, and constitute more than one third of the fish.

THE MACKEREL.

40. THE common Mackerel, while alive, is a most beautiful fish. Its body is of an elegant form, and

Where is the Electrical Eel found? Describe its appearance.
How powerful is its shock?
Describe the Mackerel.

beautifully variegated with the brightest hues of blue, green, and a silvery whiteness. Death in some measure impairs these colours, but by no means obliterates them.

41. Several varieties of this fish inhabit the ocean: they belong to the voracious class, and some of them grow to a great size. It is said that they are fond of human flesh, and Pontoppidan tells a story of a man whom they fastened upon and destroyed while he was bathing.

42. This fish emits a phosphoric light when fresh from the sea. Mackerel are generally taken with hooks, and there are extensive fisheries for them on the coast of the United States. Mackerel constitute an article of commerce, and great quantities of them are consumed in this country.

THE SALMON.

43. THE Salmon is distinguished from other fish by having two fins on the back. It has teeth both in the jaws and tongue, and the body is covered with round and minutely striated scales. The colour of the back and sides is gray, sometimes spotted with black.

44. The Salmon lives in fresh as well as in salt

What is said of the Mackerel as an article of food?
Describe the Salmon.

waters, and seems confined to northern seas, for it is not found in the waters of warm climates.

45. It goes up rivers hundreds of miles, for the purpose of depositing its spawn, and, during this peregrination, it is not to be stopped even by cataracts ; it will leap over mill-dams and falls eighteen or twenty feet high.

46. Formerly the rivers of New England abounded in Salmon ; and they were in some places taken in such numbers, that they were sold for two coppers apiece. But for some years past they have disappeared, and are now seldom taken, except in Maine. These fish, both fresh and salted, are considered a great luxury.

THE TROUT.

47. **THIS** fish has a short, roundish head, and wide mouth, filled with teeth, which cover the palate and tongue ; the scales are small, the back ash colour, the sides yellowish, and, when in season, it is sprinkled all over the body with small, beautiful red and black spots.

48. In the summer, our small brooks abound with these beautiful and delicious fish. They are so exceedingly shy that it requires an expert angler to take them ; yet it is considered fine sport. The

In what part of the United States is the Salmon taken ? In what estimation is it held ?

Describe the Trout. Where does it abound ?

baits used are worms or artificial flies, and cloudy weather is the best time for taking them.

THE CHUB.

49. THE body of the Chub is of an oblong shape, nearly round; the head, which is large, and the back, are of a deep dusky green, the sides silvery, and the belly white. The fins upon the belly are red, and the tail is brown, tinged with blue at its extremity.

50. This fish frequents the deep holes of rivers, under hollow banks, where he may be caught, in the summer season, with a hook baited with worms, crickets, and other insects. When out of season, he is full of small, hairy bones.

THE GOLD FISH.

51. AMONG the whole race of fish, none can be found more beautiful than the Gold Fish. The male

Describe the Chub. What places does it frequent?
What is said of the beauty of the Gold Fish?

is of a bright red colour from the top of the head to the middle of the body ; the rest is of a gold colour. The female is white, but her tail and half of her body have the lustre of silver.

52. The body is covered with large scales, and the tail is forked ; there is no fish in which the fins vary so much. The colour of the Gold Fish changes with age. The first year it is black ; in the course of a few years silver spots appear ; and then it turns red, and becomes more beautiful the older it grows.

53. These fish are natives of China, and the handsomest species is found in a lake not far from the mountain of Tsienking, near the city of Tchangou, situated in the province of Che Kiang.

54. From this place they were transported to Europe, and were first brought to England in 1661. They may be seen, both in England and the United States, ornamenting the parlour, in a glass globe filled with water

THE COD.

55. COD-FISH are found only in the seas of the northern parts of the world ; and they are most abundant on the sand-banks of Newfoundland, Nova Scotia, and New England.

56. These shallows are their favourite situations,

Where was the Gold Fish brought from ?
Where are Cod-fish found ?

as they abound with worms, their principal food. They are migrating fish, as they go to the polar seas to deposit their spawn.

57. Previous to the discovery of Newfoundland, the principal cod-fisheries were in the seas off Iceland, and the western islands of Scotland. To the former of these the English resorted nearly four centuries, and had no less than one hundred and fifty vessels employed in the Iceland fishery in the reign of James I.

58. These fish are caught only by means of the hook and line. Many thousands of British and American seamen are constantly employed in the cod-fisheries.

59. An immense quantity of these fish are consumed yearly. The Cod is perhaps the most prolific of all fish. In a middling sized fish, Leuwenhoek observed more than nine millions of eggs.

THE PIKE.

60. THE Pike, or Pickerel, is a fresh water fish, and in some countries is three or four feet in length. The head is very flat, and the eyes are small, and of a golden tinge. The teeth are very sharp, and

Where were Cod-fish formerly taken? How are they taken?
What is said of their consumption?

What is the size and appearance of the Pike?

disposed not only in the jaws, but in the roof of the mouth and upon the tongue.

61. The jaws have on each side an additional bone, like the jaw of a viper, which renders them capable of greater distention when the prey is swallowed. The body is long, the back broad, and the belly white. The colour of the back is greenish, spotted with yellow.

62. The Pike has been poetically styled the wolf of fishes, and the tyrant of the watery plain; and, in fact, in proportion to his strength, he is the most active and voracious of the fresh water fish.

63. He will attack every fish less than himself, and is sometimes choked in attempting to swallow those which are too large for him. It is immaterial to what species they belong, for all are indiscriminately pursued and devoured; so that every fish owes its safety to its size, its celerity, or its courage.

64. The Pike or Pickerel of our fresh water streams and ponds are seldom found to weigh more than two or three pounds. These afford the angler good sport, being bold biters. They are baited generally with small fish, and the hook is drawn with a jerking motion on the surface of the water.

THE PERCH.

65. THE Perch seldom grows to any great size,

What is said of the Pike's voracity?

the largest never weighing over five pounds. It is a very common fish, and is found in all our ponds and streams.

66. It is of a bright yellowish colour, with fine dark stripes. It is a most beautiful fish. Its flesh is firm and sweet, and it constitutes an excellent food.

67. It is usually taken with worms or small fish, and bites less voraciously than the pickerel. It is much more numerous, however, and makes good sport for the angler.

THE CARP.

68. THE mouth of this fish is toothless ; their gills have three rays, and their belly fins frequently nine. Their colour is a darkish-green, and they are possessed of no great beauty.

69. Some of them attain a great size ; they are found in slow-running streams, under the roots of trees, and hollow banks. They feed principally on worms and aquatic insects.

70. Carp, from their quick growth and vast increase, are the most valuable of all fish for the stocking of ponds. The Carp is a very cunning fish, and is sometimes called the *River Fox*. It is very tena-

What is said about the size and beauty of the Perch ? How is it as an article of food ?

How is the Carp described ? Where is it found ? What is it valuable for ?

cious of life, and may be kept alive a long time in wet straw.

THE ROACH.

71. THE Roach is a small fish, weighing sometimes half a pound or a pound. It is well known by all who frequent our rivulets and ponds. It grows to the greatest size in deep, still water.

72. It carefully prepares a bed of sand, in which it deposits its spawn: these beds may be seen in summer scattered all over the muddy bottom of the pond, and present a very pretty appearance.

73. In each of these may be seen two Roaches, and here the young fisherman resorts with his tempting bait. The meat is very firm, but has not the sweetness of many other fresh water fish.

THE TURBOT.

74. THE Turbot has been known to weigh from twenty-five to thirty pounds. Like other flat fish, it

What is related about the Roach ?
Describe the Turbot.

swims sidewise, and has its eyes both on one side of the head ; in this fish they are on the left.

75. It is singular that while the under parts of their bodies are of a brilliant white, the upper parts are so coloured and speckled as to render them almost imperceptible while lying upon the mud or sand.

76. It resorts to this stratagem to escape from danger, and to take their food, pouncing from its ambush upon all the small fry that approach it.

77. The finest Turbot in the world are found off the northern shore of England, and some parts of the Dutch coasts. It is considered a delicious fish.

THE HERRING.

78. HERRINGS breed in the inaccessible seas of the north, and thence they issue forth in multitudes as countless as the sands of the sea-shore. In their emigrations, their course is made visible to an observer by the ripple which they cause in the water. In their voyage they are pursued continually by numerous marine enemies, and by flocks of sea-fowl.

79. They reach the Shetland Islands in June, separate, surround the British Isles, and unite again at the Land's End in September. They then continue

Where is the Turbot taken ? How is it considered as an article of food ?

Where do Herrings breed ?

their progress to the American shore, every bay and creek of which they fill. Hence they proceed to Newfoundland, and finally return to their polar habitations.

80. Herrings are caught in great abundance in nets in the night. After the nets are hauled, the fish are thrown upon the deck of the vessel; they are then put in brine for twenty-four hours, when they are taken out, and strung by the gills on little wooden spits.

81. They are then hung in a chimney formed to receive them, where they remain, over a fire of brushwood, till sufficiently smoked and dried, when they are packed in barrels for carriage.

THE SEA-PORCUPINE.

82. **THIS** fish, which takes its name from its being armed with spines, varies, in dimensions, from the size of a foot-ball to that of a bushel. When enraged, it can blow up its body as round as a bladder, by means of a sort of air bag in its interior.

83. The Sea-Porcupine is found near the shores of Japan, in the Red Sea, and on the coasts of America. He is here known also by the name of *Goad-fish*.

How are Herrings taken and prepared for market?

Why is the Sea-Porcupine so called? Where is it found?

84. They are frequently fished for for the sake of amusement. The hook is baited with the tail of a sea-crab. At first, he pretends to reject it, and passes by ; but if the rod be held steady, he soon returns, seizes the bait, and swallows hook and all.

85. When he finds himself taken, he becomes enraged, bristles up his spines, swells out his belly, and endeavours to wound every thing that is near him. Finding this of no avail, he resorts to cunning, and seems to submit ; he lowers his spines, contracts his body, and lies like a wet glove.

86. But this artifice not succeeding, he renews his defensive attitude with redoubled fury. His spines are now vigorously erected, his form rounded, and his body so completely armed at all points, that it is impossible to take it by the hand ; he is therefore dragged to some distance, where he struggles, and quickly dies.

THE FLYING FISH.

87. THIS fish inhabits the European, American and Red Seas, but is principally found within the tropics. The wings, by means of which they are able to raise themselves in the air, are merely large

Why are they fished for ?

What seas does the Flying Fish inhabit ? How is it enabled to fly ?

pectoral fins. These not only assist it in flying, but enable it to swim through the water with great velocity.

88. In flying, they skim along the surface of the deep, somewhat in the manner of a swallow, but in straight lines. They fly sixty or seventy yards at one stretch, and repeat the exertion again and again by a momentary touch on the surface of the water, which gives them vigour for a new departure.

89. The double power of swimming and flying is peculiarly necessary for the preservation of this fish, for it has numerous enemies both in the water and out of it.

90. In its winged character, it throws itself out of the power of its aquatic enemies, and, as a fish, it often escapes the attack of birds, which endeavour to fall upon it.

THE TURTLE.

91. THERE are several species of this aquatic animal, of which the delight of the epicure is the Green Turtle. It is a native of the West Indies,

Why is the power of flying peculiarly necessary?
Where is the Green Turtle found?

and is occasionally upwards of six feet in length, and five or six hundred pounds in weight.

92. Dampier mentions one so large that a son of Captain Roch, a boy of ten years of age, sailed in its shell from the shore to his father's ship.

93. This kind of Turtle browses on grass, seaweed, and other plants which grow on the shoals and sand banks. It is usually caught by turning it on its back, while it is asleep. The female breeds about the month of April, and lays about a hundred eggs, which she covers with sand.

THE LOBSTER.

94. THIS inhabitant of the sea is distinguished by its claws, the pincers of one of which are furnished with knobs, and those of the other are serrated

95. They annually cast off their shells. Previously to their putting off the old one, they appear sick, languid, and restless. They acquire an entirely new covering in a few days.

96. These animals are found in the summer season, in great abundance, on our rocky coasts. They

How great is its size? What does it feed upon?

How is the Lobster distinguished? Where are they found in abundance?

are caught in wicker traps, in which is tied a fish to bait them.

97. The traps are so constructed as to admit the Lobster, but not suffer him to escape ; and by means of a stone weight they are sunk upon the reefs, and their place is marked by a buoy.

THE CRAB.

98. THE common Crab is found on all our shores, and lurks and burrows under the sand. It changes its shell once a year, and while it is performing this operation, it retires among the cavities of rocks.

99. The Crab is an exceedingly quarrelsome animal, and, when it has seized on its antagonist, it is not easily compelled to forego its hold.

100. In this situation, the captive has no resource but to relinquish the limb, and nature has provided it with the power of accomplishing this in a very curious manner.

101. It stretches the claw out steadily, then suddenly gives it a gentle crack, and the wounded limb drops off, not, as we might be led to infer from reasoning, at the joint, but in the smoothest part.

How are Lobsters taken ?

Where is the Crab found ? What is its character ? How does the wounded Crab escape from its antagonist ?

NATURAL HISTORY.

PART IV.

SERPENTS AND REPTILES.

THE RATTLE SNAKE.

1. **THIS** most dreaded of all snakes is a stranger in the eastern continent, but is found throughout America. Its usual length is four or five feet. The fangs are hollow; and when the snake is biting, it forces the fatal juice out of a gland near the roots of them into the wound.

2. The tail is furnished with a rattle, consisting of joints loosely connected, which annually increase in number after the third year, previous to which

Where is the Rattle Snake found? How is it described?

time they have no rattle. These rattles they shake with a prodigious degree of quickness, whenever they are disturbed, or are in pursuit of their prey.

3. The usual motion of the Rattle Snake is with its head to the ground. When, however, it is alarmed, it coils its body into a circle, with its head erect, and its eyes flaming in a terrific manner. From this position it springs upon its enemy, if within proper distance, and inflicts its terrible wound with unerring aim.

4. The very instant the wound is inflicted, the pain is excruciating, and the part inflames and swells; the eyes become red, the head enlarges, the heart palpitates, and the whole frame is parched with heat. In this agony the wounded person remains five or six hours, by the end of which the whole mass of blood becomes corrupted, a mortification ensues, and the ill-fated being dies.

5. It must, however, be remarked, that the snake is not the aggressor; it being perfectly inoffensive except when provoked. Several remedies have been tried to alleviate its bite, and in some cases with good effect. Olive oil, a decoction of Sal Ammoniac, Virginia snake-root, tobacco, &c. are among the number.

6. "A gentleman in Virginia was walking in the fields, when he accidentally trod upon a Rattle Snake, which reared up, shook its rattles, and bit his hand.

7. "The gentleman immediately perceived that he was in great danger; but, not willing to die unrevenged, he killed the Rattle Snake, carried it home

What are the effects of its bite? Is the snake the aggressor? Is its bite ever cured? By what remedies? What anecdote is related of a gentleman in Virginia?

in his hand, and threw it on the ground, exclaiming to his family, 'I am killed, and there is my murderer!'

8. "In such an extremity, remedies were instantly applied; his arm was tied up near the shoulder, and the wound was bathed with oil. He felt the most various and dreadful symptoms for several weeks together, but, by the help of a strong constitution, he at length recovered."

THE GREAT BOA.

9. THE ground colour of the body of this enormous serpent is yellowish-gray, on which is distributed, along the back, a series of large, chain-like, reddish-brown, and sometimes perfectly red variations, with other small and more irregular marks and spots.

10. The Boa is the largest of all land serpents,

How is the Great Boa described?

being frequently from thirty to forty feet in length, and of a proportionate thickness. The rapacity of these creatures is often their own destruction; for whenever they seize and swallow their prey, they seem like surfeited gluttons, unwieldy, stupid, helpless, and sleepy. They are then easily destroyed.

11. But it is otherwise when this sleeping interval of digestion is over; they then issue, with famished appetites, from their retreats, and with accumulated terrors, while every animal of the forest flies from their presence.

12. One of them has been known to kill and devour a buffalo. "Having darted upon the affrighted beast, the serpent instantly began to wrap him round with its voluminous twistings; and, at every twist, the bones of the buffalo were heard to crack as loud as the report of a gun.

13. "It was in vain that the animal struggled and bellowed; its enormous enemy entwined it so closely, that at length all its bones were crushed to pieces, like those of a malefactor on the wheel, and the whole body was reduced to one uniform mass: the serpent then untwined its folds, in order to swallow its prey at leisure.

14. "To prepare for this, and to enable it to slip down the throat more smoothly, it was seen to lick the whole body over, and thus to cover it with a mucilaginous substance.

15. "It then began to swallow it, and in the act of swallowing, the throat suffered so great a dilatation, that it took in at once a piece that was thrice its own thickness."

When is it easily destroyed? What anecdote is related of the Great Boa and buffalo?

16. In 1799, a Malay seaman was almost instantaneously crushed to death, in the island of Celebes, by one of these serpents, thirty feet in length, which seized him by the right wrist, and twined around his neck, breast, and thigh.

17. Nearly allied to the boa is the Anaconda of South America, which is also an enormous serpent, and, like the former, destroys its prey by entwining itself around them; it likewise swallows them in the same manner. It is the dread of the inhabitants.

18. The following anecdote is related of one. "A gentleman, who had large concerns in America, informs us, that he sent a soldier and an Indian into the woods to kill game.

19. "The latter, finding himself fatigued, reposed himself, as he thought, upon the body of a felled tree; but scarcely had the poor fellow taken his seat than the enormous mass began to move, and he fell upon the ground from excess of fright.

20. "The soldier, seeing his companion's situation, instantly levelled his well-aimed piece, and repeated his fire till the monster died; but what was his surprise, upon attempting to raise the Indian, when he found that terror and apprehension had actually killed him!

21. "The skin of this animal was stuffed and sent to the Prince of Orange, and a few years since might have been seen in his cabinet at the Hague."

What anecdote is related of a Malay seaman? Where is the Anaconda found? How does it compare with the boa? What anecdote is related about one?

THE BLACK SNAKE.

22. THIS is one of our most common snakes in this country, and is distinguished by its being perfectly black. Its usual length is five or six feet. It is perfectly harmless, always fleeing at the approach of any person, and being destitute of venom.

23. It is very active, and will at times climb trees after its prey; and at other times it may be seen gliding at full length along the ground. On some occasions it presents itself half erect, and in this posture its eyes are seen to great advantage.

24. Its eyes appear like fire for brightness, by means of which it is said to be capable of fascinating birds, who tremble on the wing, and are at length so completely frightened as to fall into the serpent's mouth.

25. The following instance of this power of fascination was stated, by Professor Silliman, in the American Journal of Science, vol. xii., as having been seen by himself.

26. "In the month of June, 1823, in company with a friend, I had just crossed the Hudson river, from the town of Catskill, and was proceeding in a

How is the Black Snake distinguished? Is the Black Snake dangerous? What is said of its fascinating powers? What is related by Professor Silliman?

carriage, by the river, along the road, which is here very narrow, with the water on one side, and a steep bank covered by bushes on the other.

27. "Our attention was in this place arrested by a number of small birds, of different species, flying across the road and then back again, and turning and wheeling in manifold gyrations, and with much chirping, yet making no progress from the particular place over which they fluttered.

28. "We were not left long in doubt, when we observed a Black Snake of considerable size, partly coiled and partly erect from the ground, with the appearance of great animation, his eyes brilliant, and his tongue rapidly and incessantly brandished.

29. "This reptile we perceived to be the cause and the centre of the wild motions of the birds, which ceased as soon as the snake, alarmed by the approach of the carriage, retired into the bushes; the birds, however, alighted upon the neighbouring branches, probably awaiting the reappearance of their tormentor and enemy."

THE ANNULATED SNAKE.

30. THE ground of this snake is white, with brown transverse bars, which are straight and dis-

Describe the Annulated Snake.

tinct on the back, but run into one another on the belly. The tail is slender, and has two ranges of imbricated scales on its under surface.

31. This animal is a native of South America, and, when irritated, or preparing to bite, raises up the fore part of its body, and carries its head in a bending position.

32. Of this species there are a great number of elegant varieties, many of which are figured in the elaborate work of Seba, particularly the large Annulated Snake of Surinam.

THE EGYPTIAN VIPER.

33. This is said to be the Officinal Viper of the Egyptians, and is by some supposed to be the Asp of Cleopatra, by the bite of which that high-spirited princess determined to die, rather than submit to be carried to Rome in order to grace the triumph of Augustus.

34. It is from twenty inches to three feet and

Where is the Annulated Snake found? What is said of its varieties?

What is the Egyptian Viper supposed to be?

upwards in length, variegated with rich chestnut spots or bands, on a lighter brown ground ; the scales are remarkably short, close-set, and hard ; the eyes are vertical ; the head compressed, and covered with very minute brown scales, and reddish stripes.

35. It is abundant in Egypt, and other parts of Africa, as well as in Asia. It is imported in considerable quantities every year to Venice, for the use of apothecaries in the composition of theriaca, and for other purposes.

36. It is very poisonous, but not always fatally so. The death produced by its bite is said to be speedy, but devoid of pain.

THE COMMON VIPER.

37. THIS snake is found abundantly in Europe, and in some parts of America. It is the only one of the serpent tribe, in Great Britain, from whose bite any evil consequences are to be apprehended. It is usually two or three feet in length. The back

How is the Egyptian Viper described ? Where is it abundant ?
What is it used for ? What is said of its bite ?

Where is the Common Viper found ? How is it described ?

is marked the whole length with a series of rhomboidal black spots, touching each other at the points.

38. Vipers crawl slowly at all times, and, in general, only attack such smaller animals as are their usual food. They never willingly assail man or the larger animals, except when wounded, trampled upon, or irritated, when they become furious, and are apt to bite severely.

39. From the firmer manner in which their spine is articulated, they are unable to twist themselves round so much as other serpents. It is only the head that they can turn with any considerable degree of agility; owing to this circumstance, they are easily taken.

40. For this purpose, some persons use a forked stick, to fix a Viper by the neck; and then, seizing it by the tail, throw it into a bag. Others take it fast in the left hand by the neck, and, while the animal opens its mouth, cut off its poisonous fangs with a pair of scissors; the Viper, after this, is incapable of doing injury, and may be handled with perfect safety.

41. The English Viper-catchers have the boldness to seize them suddenly by the neck, or even by the tail, with their hands; and, holding them with a firm grasp, the animal is altogether incapable of turning itself sufficiently to bite the hand that holds it.

42. Highly poisonous as the venom of the Viper is, when infused into a wound, it produces no effect whatever when taken into the stomach. Its flesh was once in great request as a restorative and remedy for various diseases.

How is the Common Viper taken? What is said of its poison?

THE GREEN LIZARD.

43. THIS species of Lizard is called Green from its colour. In the spring, when it has thrown off its old covering, it exposes its new skin to the sun's rays, which, playing on its enameled scales, gild them with undulating reflections.

44. The upper parts of the body are of a beautiful green, variegated with yellow and brown, the under parts being of a whitish colour. It is chiefly in warm countries that it shines with all its superb ornaments, like gold and precious stones.

45. In these regions it grows to a larger size than in more temperate countries, being sometimes found thirty inches in length. The inhabitants of Africa eat the flesh of this animal.

46. It is a gentle creature, and, if taken when young, may be rendered tame. If irritated, however, it will defend itself with courage even against a dog. The Green Lizard is not confined to warm countries, but is found in some temperate climates, though it is a stranger to us.

Where is the Green Lizard chiefly found? What is its size?
What is said of its courage?

THE CHAMELEON.

47. **THIS** reptile is seldom above fourteen inches in length. It is found in all the warm countries of both continents, in India, and the India islands, in Mexico, in Africa, and in some of the warmer parts of Spain and Portugal.

48. The whole skin of the Chameleon is strewed over with little knobs, like shagreen; these are extremely smooth, and more remarkable on the head.

49. The mouth is wide; and the tongue is of an extraordinary form, being very long, round, and hollow at the end, somewhat like an elephant's trunk. With this instrument it seizes insects, on which it subsists, with wonderful quickness.

50. The Chameleon is extremely ugly in its appearance, having neither agreeable proportions, nor beauty of form, nor elegant movements, to please the eye of the observer, so that no one can attempt to catch, or even to touch it without disgust.

51. The Chameleon has ever been noted for its changes of colour. When at rest and in the shade

How large is the Chameleon? Where is it found? Describe its appearance. What is related of its changes of colour?

for some time, the little knobs on the skin are sometimes pale red, and the soles of the feet are white, slightly tinged with yellow.

52. This colour changes when exposed to the light of the sun: the parts exposed to the sun are frequently of brownish-gray, while the unilluminated part is of a beautiful fawn colour.

53. At other times, the whole skin seems of a beautiful green, spotted with yellow. When touched, it often suddenly becomes spotted all over with pretty large blackish blotches, mixed with some green.

54. It is now thoroughly ascertained, that it by no means assumes the colours of the bodies which are around it, and that those which it accidentally presents are not extended over the whole of its body, as was formerly imagined. It was likewise believed to have the power of living on air alone; but this absurd belief is now exploded.

THE TOAD.

55. THE Toad, which is easily distinguished by its livid appearance and sluggish and disgusting movements, is, in figure, nature and appetites, like

What is said of its living on air ?

Give a description of the appearance of the Toad.

the frog. It is usually from four to six inches in length.

56. It is perfectly innoxious, and may be rendered tame and docile. It is, however, persecuted and murdered wherever it appears, on the supposition merely, that, because it is ugly, it must in consequence be venomous.

57. These animals are so extremely numerous in some parts of South America, that, in rainy weather, not only all the marshy grounds, but the gardens, courts and streets are almost covered with them; many of the inhabitants believe that they rain down, which absurd supposition is sometimes credited even in our own country.

58. There is one singular but well authenticated circumstance relative to it, for which naturalists have hitherto been unable to account. It has repeatedly been found alive in blocks of stone, marble, and other solid substances, in which it must have been imbedded for centuries.

THE FROG.

59. THE common Frog is known throughout Europe and America. It varies considerably in colour,

What is the character of the Toad? What singular circumstance is related of it?

Where is the common Frog found?

but its general tinge is green or olive-brown, with irregular streaks of black.

60. It deposits its spawn in March or April, consisting of a large heap of gelatinous, transparent eggs, in each of which is imbedded the embryo, or tadpole, in the form of a black globule. The tadpoles are generally hatched in about five weeks.

61. The form of the Frog is light and elegant, and its appearance lively ; the limbs finely calculated for its peculiar motions, and the hind feet strongly webbed to assist it in swimming.

62. It lies torpid in winter, usually buried in the mud at the bottom of stagnant waters. In the countries round Hudson's Bay, it is often found entirely frozen, in which state it is as brittle as glass ; yet, by wrapping it in warm skins, and exposing it to a slow fire, it will return to life.

What is the appearance of its spawn or eggs ? What is said of its form ? How does it exist in winter ?

NATURAL HISTORY.

PART V.

INSECTS.

THE COMMON LOCUST

1. OF the Locust tribe there are upwards of two hundred species. The common Locust of New England is not more than one inch and a half in length, while the most abundant species of Europe is about three inches.

2. The Crested Locust of the East is a beautiful species, being of a bright red, with the body annulated with black, and the legs varied with yellow :

How many species are there of the Locust ? Mention some of them.

the upper wings are marked with variegations of dark and pale green. Its length is four inches ; and the wings, when expanded, measure about seven.

3. We can hardly conceive of the immense numbers of these destructive insects, which are found in the eastern continent. When they fly, they appear like a dark cloud, and obscure the light of day.

4. Wherever they alight, they make a dreadful havoc among the vegetation, destroying grass, leaves, and every appearance of verdure. They soon give a fruitful country the appearance of complete barrenness.

5. In their flights they have been known to fall into the sea in such myriads as to form banks on the shore of three or four feet in height, and fifty miles in length. Dying in such vast quantities, they render the air pestilential, and absolutely insupportable to the inhabitants.

THE GRASSHOPPER.

6. THIS little insect, that breeds in such abundance in every meadow, and continues its chirping through spring and summer, is well known. Its colour is greenish.

7. It has four wings and six legs, the hinder legs

What is related of those found in the eastern continent ?
Give a general description of the Grasshopper.

being much longer than the others, in order to assist it in leaping. It feeds principally on grass: it lays about a hundred and fifty eggs, of the size of anise seeds. The female dies soon after she has produced them.

THE CATERPILLAR.

8. **THIS** name is applied to the larva of a great variety of insects. In the summer and autumn, they may be seen in great abundance under the cover of a fine web, which they spin to defend themselves from the inclemency of the weather; and in the protection of this they pass the winter months in a torpid state.

9. Invited out by the warmth of spring, they soon attain their full growth. At this time, they suspend themselves by the tail, to change into chrysalids, in which state they remain fourteen days. Their mode of suspension is a singular instance of the extraordinary power of instinct.

10. They first draw two or three blades of grass together, and fasten them by means of their silk; then hang themselves beneath the centre of these, each having its own little canopy.

11. By this means they are protected from the weather, and hidden from the sight of birds. From these chrysalids they issue in the form of butterflies.

Mention some particulars of the Caterpillar.

THE SILKWORM.

12. THE Silkworm, which belongs to the caterpillar tribe, was unknown to the Romans until the reign of the emperor Justinian, by whom it was introduced into Europe. It was originally found in China.

13. It is the larva of a moth of no great beauty, but it has, in a commercial view, become a most valuable insect; affording those delicate and beautiful threads that are afterwards woven into silk, and used in almost all parts of the world.

14. In the warm climates of the East, these insects are left at liberty on the mulberry-trees, where they are hatched, and where they form their cocoons or cones; but in cooler countries, they are kept in a room with a south aspect, built for the purpose, and fed every day with fresh leaves.

15. The worms are placed on wicker shelves, covered with the most tender mulberry-leaves. Near the expiration of thirty days, they begin to make their cones, after which they prepare for their final dissolution.

16. The cone of silk somewhat resembles a pigeon's egg, and the whole length of the thread which it contains will sometimes measure three hundred yards.

By whom was the Silkworm introduced into England? From what country? What is said of its value? How is it raised in warm climates? How in cooler countries?

THE BUTTERFLY.

17. BUTTERFLIES have six legs, but make use of only four. The outer coat of the eye, in all the species, has a lustre, in which may be discovered all the various colours in the rainbow. It has likewise the appearance of a multiplying glass, having a great number of sides, in the manner of a brilliant cut diamond.

18. The wings of Butterflies are very different from those of any other fly: they are four in number, and, though two of them be cut off, the insect has still the power of flying. They are, in their own substance, transparent, but owe their opacity to the beautiful dust with which they are covered.

THE BEE.

19. THIS little insect is the manufacturer of two

How are Butterflies distinguished ?

very important articles, *honey* and *wax*. A hive of Bees is a perfect monarchy, containing a queen, the drones, and the working Bees.

20. How necessary the queen is to the government of the hive, appears from the fact, that, when she is killed, the Bees are thrown into confusion, and will undertake no labour.

21. The queen and working Bees, only, have stings; and this provision of a sting is perhaps as curious a circumstance as any attending the Bee. The apparatus itself is of a very singular construction, fitted for inflicting a wound, and at the same time conveying a poison into it.

22. These industrious little animals build their cells of wax, each cell having six sides, and being sufficiently large to admit a pea. They are very careful in cleaning and polishing the sides of the cells. They then fly abroad, and, from the opening flowers, fill their stomachs with a few drops of honey, which they deposit in their cells.

23. When the Bees begin to work in their hives, they divide themselves into four companies; one of which roves in the fields in search of materials; another employs itself in laying out the bottom and partitions of the cells.

24. A third is employed in making the inside smooth from the corners and angles; and the fourth company brings food for the rest, or relieves those who return with their respective burdens.

What important articles do Bees manufacture? How does a hive resemble a monarchy? How are the cells constructed? How are the working bees divided?

ANTS.

25. THE Ant has ever been noted for its industry. These little animals live together in great numbers in an Ant-hill. When the winter is past, they come forth and examine the condition of their habitation.

26. Having found what repairs are necessary, they then go to work with surprising activity, and pass the summer in mending their houses and laying in a stock of food.

27. It is a very curious sight to notice the industrious manner in which they bring various things home. If they meet with any thing too heavy for one to carry, several will assist, some dragging, others pushing, and thus, in time, they convey it home.

28. How trifling soever this little animal may appear in our climate, there are few more formidable creatures than the Ant of some tropical countries. M. Malonet, a French traveller, has described one of their cities, and, were not the account confirmed by various testimonies, it might seem exaggerated.

29. He observed at a great distance what seemed a lofty structure, and was informed by his guide that

What has the Ant always been noted for ? In what manner do they live together ? What is related of them by Malonet ?

it consisted of an Ant-hill, which could not be approached without danger of being devoured.

30. Its height was from fifteen to twenty feet, and its base thirty or forty feet square. He was informed that it became necessary to destroy these nests, by raising a sufficient force to dig a trench all round, and fill it with fagots, which were afterwards set on fire.

31. Then fire-arms were employed from a distance, to drive the insects out, and make them run into the flames. This was in South America ; and African travellers have met with them in the same formidable numbers and strength.

THE SPIDER.

32. THERE are several kinds of Spiders, all of which have eight crooked legs, two arms, six or eight eyes, and the head furnished with two claws, or feelers, like pincers, a little below the point of which the insect emits a poison.

33. The Spider is supplied with a glutinous matter within its body, which it uses for the purpose of making its web. It spins out this glue into a fine thread, which it fastens upon some object, and then strains it across to some other point, doubling and

How is the Spider distinguished ? How does it construct its web ?

twisting it, and interweaving it in a very curious manner.

34 The Spider is very attentive to its web, and often cleans away the dust, by shaking the whole with its paws. If it is partly destroyed, he patiently sets to work repairing it, and always appears very careful not to give himself up blindly to passion, or to take any step that might prove fatal.

THE WASP.

35. OF this troublesome insect there are several varieties. The one which is most common is well known from the very small connexion which unites the two parts of its body. Its legs are yellow ; and the whole tribe are noted for their propensity to sting.

THE SCORPION.

36. THE Scorpion somewhat resembles a lobster.

What is said about the Wasp ?

It is very common in hot countries, and very bold. Far from running away at the approach of an enemy, it assumes an attitude of defiance. It erects its tail, makes ready its sting, waits the attack, and seldom ceases to resist till it is either killed or the foe retires.

37. Along the Gold Coast, in Africa, they are sometimes found larger than a lobster, and their sting is inevitably fatal. From the language of Scripture, too, we find that in the East these animals have long been formidable to mankind.

THE BEETLE.

38. THE Beetle, of which there are several kinds, has two wings, which are enclosed in cases, though they are capable of being extended when it takes its flight.

39. These cases are necessary to prevent injury to its delicate wings, for all the species burrow holes in the ground. The Beetle is also distinguished by its jaws or horns, which are very sharp, and, in some of the larger species, formidable weapons.

Describe the Scorpion. Where is it found of the largest size ?
What is said of its sting ?
Describe the Beetle.

THE SNAIL.

40. THESE insects inhabit shells, and they are found of various sizes and forms. They fill up all the intermediate gradations of magnitude from that of an apple or egg to the minuteness of a grain of wheat ; and, in that diversity of size, exhibit all the colours of the rainbow, with the polish of ivory or marble.

41. The eyes of the snail, which are four in number, are lodged in their horns, one at the end of each horn, which they can protrude and retract at pleasure. They chiefly subsist upon the leaves of plants and trees.

WORMS.

42. WORMS constitute a large class of animals. The Earth Worm is so formed as to be capable of

What is said of insects of the Snail kind ?
Describe the Earth Worm

both dilatation and contraction ; and the whole body is a continuation of rings and joints.

43. Under the skin there is a slimy liquid, which the reptile ejects when it is required, and which facilitates its passage through the earth.

44. It has breathing holes, which run along the back ; but it has neither bones, eyes, ears, or brain ; and the heart is placed close to the head.

MADREPORE AND CORAL.

45. Among the zoophyte class we may just mention the Madrepore and Coral tribes, the minute insects composing which form reefs and islands of immense magnitude in the Southern Ocean.

46. A very considerable part of the coast of New Holland is bordered by reefs of their construction, which rise to the surface from a vast depth.

47. Coral is generally obtained from the Mediterranean, but the most valuable is that of the East ; it being larger in size and more compact in substance.

What insects construct the reefs of Coral in the Southern Ocean ?
Where is Coral obtained from ?

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