THE

ANIMAL MUSEUM;

OR,

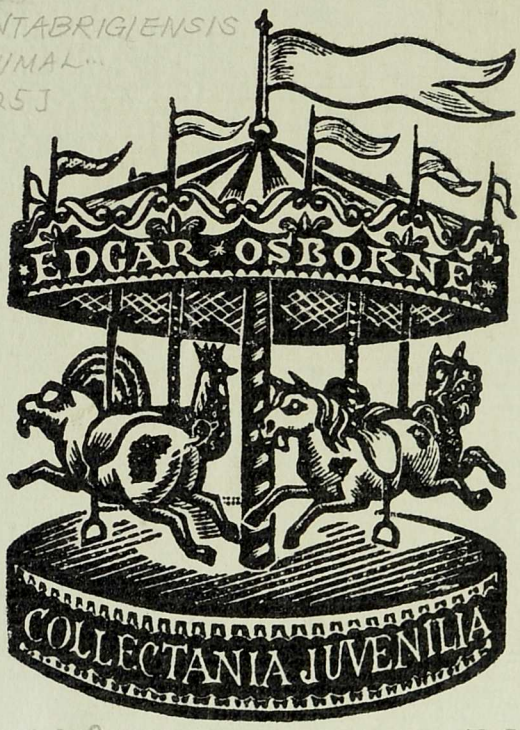
Picture Gallery

OF

QUADRUPEDS.

LONDON:

J. HARRIS, ST. PAUL'S CHURCH-YARD.



THE

ANIMAL MUSEUM.

London Pub.d Dec.1.1825, by J. Harris, corner of St. Pauls.

THE

ANIMAL MUSEUM;

OR,

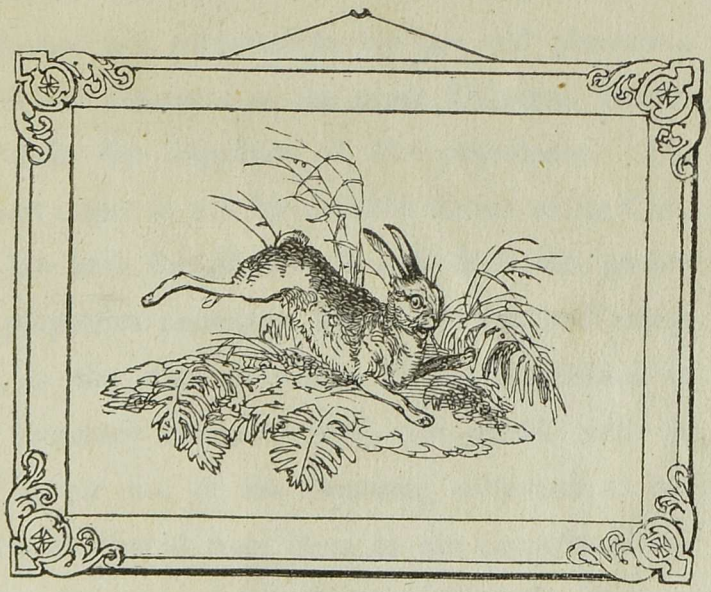
Picture Gallery

OF

QUADRUPEDS.

BY THE AUTHOR OF

"CONVERSATIONS ON ASTRONOMY."



LONDON:

J. HARRIS, ST. PAUL'S CHURCH-YARD.

LONDON
PRINTED BY COX AND BAYLIS, GREAT QUEEN STREET.

INTRODUCTION.

In this little Work, the Writer has been careful to impress on the minds of his juvenile readers this important truth: that all the variety of animals—those that roam wild in their native deserts, and those which man has subjected to his use and pleasure—are all the creatures of the great Universal Father, and under the inspection of His providence. The meanest insect is not beneath the notice of its Creator. He hath furnished each individual with powers and properties necessary for its defence and enjoyment, in the state to which He hath ordained it. The necessary inference from this grand truth is, that, in our use of the creatures subjected to our service, we should treat them as the property of our common Creator and Benefactor, with all the kindness their nature is capable of receiving.

This conduct is not only our duty, but our interest; for all the animals domesticated by man, or that come within the sphere of his operations, are sensible of kindness; and but few are incapable of some return: for gratitude seems the peculiar property of the inferior part of creation in our lower world.

CONTENTS.

PLATE V.

PLATE VI.

PLATE VII.

PLATE VIII.

PLATE IX.

PLATE X.

PLATE XI.

PLATE XII.

PLATE XIII.

PLATE XIV.

PLATE XV.

PLATE XVI.

PLATE XVII.

PLATE XVIII.

PLATE XIX.

PLATE XX.

PLATE XXI.

PLATE XXII.

PLATE XXIII.

PLATE XXIV.

PLATE XXV.

ANIMAL MUSEUM.

PLATE I.

THE HORSE, THE OX, AND THE ASS.

The first compartment is occupied by three principal animals which man has subjected to his will and service: of these the Horse stands first and pre-eminent.

No. 1.—THE HORSE.

This noble animal, adapted by its form and size for strength and swiftness, is in disposition so docile and gentle, that there is scarcely any work, within the compass of an irrational animal, to which his capabilities may not be applied. His understanding, if I may be allowed the expression, is superior to that of any other animal with which we are acquainted. Totally devoid of the cunning peculiar to some, he possesses an instinct which in many instances seems to amount almost

to the reasoning faculty of man. The road he has once travelled, and the inn where he has once stopped, he never forgets. His attachment to his master and those who have the care of him is peculiarly strong and amiable; and, in his general character and disposition, he approaches nearer to the kind and benevolent feelings of humanity than any other animal. His ardent and unabated courage, unmingled with ferocity, renders him a fit associate for man in the toils of war. The field of arms seems to be his natural ground: there he shines with unrivalled splendour, participating with his rider the dangers and glories of the battle.

Let me draw your attention to the beautiful and sublime description of this noble animal in "The Book of Job," the author of which lived in the native country of the horse, where his generous and amiable qualities are still held in the highest estimation:—"Hast thou given the horse strength? Hast thou clothed his neck with thunder? Canst thou make him afraid, as a grasshopper? The glory of his nostrils is terrible. He paweth in the valley, and rejoiceth in his strength; he goeth on to meet the armed men. He mocketh at fear, and is not affrighted; neither turneth he back from the sword. The quiver rattleth against him, the glittering spear and the shield. He

swalloweth the ground with fierceness and rage; neither believeth he that it is the sound of the trumpet. He saith among the trumpets, Ha! ha! He smelleth the battle afar off, the thunder of the captains, and the shouting."

"The horse," says M. De Buffon, "is of all animals that which, with its large size, preserves the proportion and elegance of all its parts. On comparing him with other animals immediately above and below him, we may observe, the ass is ill-made; the lion has the head too large; the ox has the legs too thin and short; the chamois is ill-formed; and the larger animals, the rhinoceros and the elephant, are, so to speak, but enormous masses. He has not the air of imbecility, as the ass; nor of stupidity, as the ox. The regularity of the proportions of his head give him a lightness, which is well sustained by the beauty of his chest. The horse seems to raise himself above the state of a quadruped, in the elevation of his head. In this noble attitude, he looks upon man face to face. His eyes are quick and wide; his ears well made, and of a becoming size, without being too short, like those of the bull, or too long, like those of the ass. His mane well becomes his head, adorns his neck, and gives him an air of strength and pride. His tail, formed of long and thick hair, covers and terminates advantageously the

extremity of his body, very differently from the short tail of the stag, the elephant, and others; or the naked tail of the ass, the chamois, or the rhinoceros. His feet are terminated in one round hoof, not cloven like that of the ox. He has six cutting-teeth in each jaw. His age may be ascertained by his teeth, until six years, when he loses what is called his colt's-tooth; and after this time it can only be guessed at by their length."

The female produces one foal in a year; it grows very fast, and in three years is fit to commence its stage of discipline.

The horse lives naturally to a considerable age. I remember a horse, who carried his master for more than twenty-five years. He was then turned out to enjoy himself in a good pasture for the remainder of his days, with an excellent open shed for his retreat from the inclemency of the weather. I do not remember how long he lived in this state of freedom, but I believe for several years.

It is the opinion of naturalists, that Arabia is the native country of the horse. Here their wild and unmixed breed roam at large through vast and trackless deserts, as little degenerated from their primeval form as those animals which have not experienced the care and discipline of man. The climate is peculiarly adapted, not indeed to their size—for the Arabian horses are not so large

as those bred in our own country—but to their spirit and swiftness, in which qualities they greatly excel.

The purity of the race is preserved by the Bedouins with a care almost amounting to superstition. The males are sold at a high price, but the females are seldom permitted to be sent out of the country; and the birth of a foal is esteemed among the tribes a subject of joy and mutual congratulation. These horses live in the tents, among the children, and are trained with a tender familiarity, which forms them to habits of gentleness and attachment. They are accustomed only to walk and gallop: of the whip and spur they have no knowledge. No sooner do they feel the touch of the hand or the stirrup, than they spring forth with the swiftness of the wind; and, if the rider be dismounted, they stop till he has regained his seat. From the extreme aridity of the soil, Arabia produces no grass, except in the early spring. The constant food of the horses is barley; and it is remarkable that the Arabs never suffer them to eat during the day, but always feed them in the night. In the daytime, they are kept constantly saddled at the door of the tent, ready for immediate use.

The Arabs are exceedingly fond of the chase, and live mostly on the plunder of travellers, whom

trade or curiosity leads to journey through their wild and inhospitable deserts. "Their hand," according to the prophetic declaration of Scripture, "is still against every man, and every man's hand against them."

It is from this country, particularly the part called Arabia Felix, that the great men in India are supplied with horses.

The horses of Persia much resemble those of Arabia, but are not equal to them in beauty, being very narrow in the fore-quarters. They are fed upon chopped straw, mixed with barley; and, instead of grass, are soiled with green barley for a fortnight or three weeks.

It is the opinion of some writers, that Arabia was originally supplied with its fine race of horses from Ethiopia; but the contrary is generally understood to be the truth, and that they were first introduced into Ethiopia by the Arabian princes, whose dynasty at present fills the throne of that empire.

The horses of Ethiopia are spirited and strong, and commonly black. They are used only in the race, or in battle: all servile work is done by mules.

The Ethiopians never shoe their horses; and in passing through stony places, which might injure their feet, they ride on mules, leading their horses by their side.

Egypt has two breeds of horses—one its own, the other Arabian. Those of the Arabian breed are held in high estimation, and are purchased at a great price, to be sent to Constantinople.

Barbary, on the coast of Africa, derives its fine breed of horses also from Arabia. Spain was formerly celebrated for the swiftness of its horses; but they were greatly improved by the mixture of the Arabian, introduced into that country by the Saracens.

It appears, from the accounts of America by the first discoverers of that continent under Columbus, that the horse was unknown there until introduced by the Spaniards.

In France, there are two breeds of horses; one, of a light and swift kind, in Lemoisin, in the south; the other, in Normandy, strong and active, and principally used in husbandry and for draught. The Norman breed are not large, but generally short-backed and compact in their form. They are of various colours; but white and roan are predominant. The French never mutilate their horses, but leave them all the advantages that nature has given them. They are very docile, and seldom vicious.

No country in Europe produces such fine horses as England, whether for swiftness, strength, or courage. The excellency of the Spanish and

English breed, called the *barb*, is derived from a mixture of the Arabian blood, according to the purity of which their value is estimated.

These are also called *blood-horses*, and are chiefly used in racing. Their swiftness is almost incredible. In the annals of Newmarket, famous for racing, a horse, named Childers, exhibited a most amazing instance of rapidity, his speed having been more than once exerted equal to eighty-two feet and a half in a second, or nearly a mile in a minute!

The next in repute with us is the *hunter;* inferior to the racer in swiftness, but superior in strength, having less of the Arabian blood and more of the English.

Horses of this kind are very highly esteemed amongst us, where hunting forms a large portion of the amusement of the nobility and gentry.

The horses which, in our country, are appropriated to the draught are unequalled in size and strength by those of any other parts of the world; and our cavalry in the late war, particularly what was used in Spain, and at the celebrated battle of Waterloo, was greatly superior to that of the French, both in swiftness and weight. Nothing could withstand the impetuosity and momentum of the British horse. The famous imperial guard of Buonaparte was overthrown and defeated in

a single charge; and in this it did but sustain its ancient glory: the scythed-chariots and superior cavalry of the ancient Britons struck terror even into the veteran legions of Cæsar; and the first money coined in Britain was stamped with the figure of a horse.

That the breed of horses was, in very early times, a subject of great attention with our ancestors, appears from an edict, in the reign of Athelstan, the Saxon, which prohibited the exportation of that animal for sale.

At what period the cruel custom of docking and mutilating this fine and generous animal commenced in our country, I have not been able to discover; but I think the following remark of a noble writer well worth consideration:—" I must own I am not possessed with the English rage of cutting off all the extremities from horses. I venture to declare I should be well pleased if their tails were left on. It is hardly credible what a difference, especially at a certain season of the year, this single alteration would make in our cavalry, which, though naturally superior to all others that I have seen, are, however, long before the end of a campaign, for want of that natural defence against the flies, inferior to all; constantly fretting at the piquet, tormented and stung off their meat and stomachs, miserable and helpless;

while the foreign horses brush off the vermin, are cool and at ease, and mend daily, instead of perishing, as our's do, almost visibly in the eye of the beholder."

Agreeing perfectly with Lord Pembroke in the oregoing observations, I would also present you with the opinion of a French officer of chasseurs, on the state of the British cavalry. He acknowledges them superior to all others on their first taking the field; but, as the campaign advances, their force diminishes, owing, he conceives, to our method of feeding them and keeping them too warm, which treatment incapacitates them for enduring the severities which the vicissitudes of a long campaign naturally produce in a change of food and covering. The thatch of an unroofed cottage or barn will supply sufficient forage for the sustenance of the French cavalry; but on the same diet our's starve.

I was much amused, the other day, with an account of a horse, which shewed a wonderful attachment to music. The pasture where he was turned to graze came up to the windows of the saloon, where the ladies of the family usually assembled; and whenever the piano-forte was touched, the animal regularly galloped from the farther end of the field; and, placing his head close to the window, would stand there during

the whole time that the music continued, in an attitude of the profoundest attention.

I was myself a witness to a remarkable instance of the effect of sound upon the association of ideas in horses. A troop of cavalry horses was turned out on the race-ground of a provincial town; and, as I passed over the same ground during a thunder-storm, I observed the whole troop drawn up in exact order, as if on parade.

Having viewed this fine and generous animal in his state of proud superiority over the whole brute creation, beautiful in his form, high-spirited, courageous, bold, animated, yet most gentle and docile in his natural disposition and habits, the faithful, obedient, and humble associate of man in his dangers and pleasures;—reverse the picture, and behold this generous and noble creature abused and insulted, the victim of avarice, cruelty, oppression, and ingratitude! See him, blind and lame, and worn down by ill-usage and neglect, wasting the poor remains of his strength in the never-ending round of the mill-circle; groaning beneath a weight unequal to his worn-out frame; or urged beyond his enfeebled powers in the service of a cruel avaricious postmaster, the helpless victim of unrestrained passion or thoughtless levity! I have often seen half-a-crown held up by those who lay claim to the character of men, to

urge the postboy to ply the whip and spur against the lacerated sides of the poor, tired, afflicted animals, which drag them from place to place, regardless of the miserable and shattered frame, which would move pity in any breast animated with the slightest feelings of humanity. I hope, my dear children, when you arrive at an age to have horses of your own, you will remember their noble qualities; and, when seated behind the poor posthorse, you will not be unmindful of his former excellencies, but think of his faithful service, and shew that you are human. But, should you so far forget the imperious duties of your nature, as to promote or in anywise encourage the cruel and injurious treatment of this or any other animal subjected to your service, and so committed to your care, reflect upon the just vengeance of Him, whose creatures you abuse, and in whose book every act of wanton barbarity is recorded.

I cannot omit, as far as my feeble voice can extend, to give the just and well-deserved praise to that truly benevolent man, Mr. Martin, member for Galway, whose unremitting efforts to rescue the poor suffering animals employed in the service of men from the wanton cruelty and unprovoked barbarity of their unfeeling persecutors, have been productive of much good effect, and who did not think it unbecoming a British senator to espouse

the cause of those who had none to help them, and to plead for those poor, defenceless, suffering, uncomplaining creatures, who cannot plead for themselves.

No. 2.—THE OX.

Among the innumerable instances of the peculiar benevolence of God to His favoured creature, man, are the subjugation of the beasts of the earth to his use, and the grant of the most absolute and unlimited dominion over them.

From the earliest ages of antiquity, that meek and quiet animal, the ox, which next presents himself to your observation, has been the constant and unwearied servant of man. Observe his honest front, in which are depicted the characters of patient labour and uncomplaining toil! Busied in an occupation, which the conquerors of kings have not disdained to share, the ox participates with man in the toil and glory of preparing that food which is emphatically denominated "the staff of life." His services, though less brilliant, are by no means of less value, than those of the horse. The science of agriculture has ever been held in the highest estimation, and enriched with the sweetest flowers of poetry. The *Georgics* of Virgil will retain their pre-eminence in the world

of taste and literature, as long as bread continues to be the food of civilized man. The ox is peculiarly adapted to the work assigned him. He is slow in his pace; but the plough requires strength rather than speed, and in that quality he excels: his strength and patience of toil naturally fit him for the laborious and continued exercise of the plough. He is used also in the draught; but I never remember to have seen the ox carrying a burden. I am unacquainted with the reason of this; but I presume, from the general disuse, that it is a service unfitted to his powers.

M. De Buffon observes, "The ox sleeps but a short time, and not heavily; he wakes at the slightest noise. As he reposes commonly on his left side, the loin of this side is always larger and fatter than that of the right. Oxen, like most domestic animals, vary in colour. The red are the most common, and the most esteemed: sometimes they are black. The grey and the white," the same author observes, "are fit only for fattening. But, of whatever colour, the skin of the ox should be shining, thick, and soft: if the hair be rough, disunited, or in bad order, we may conclude the animal is unwell—at least not in a fit state for service."

A good ox for the plough should be neither

too fat nor too lean; his head should be short and thick; his ears hairy; his horns strong, shining, and of a middle size; his eyes large and black; his muzzle broad and flat; his nostrils very open; the teeth white and equal; the neck plump; the shoulders large and heavy; the breast large and broad; the outer flesh, which we call the *dewlap*, hanging down to the knees; the ribs long and wide; the flanks extensive; the thighs large; the crupper broad; the haunches long; the back straight and full; the tail hanging down to the ground, ornamented with tufted and fine hair; the feet firm; the skin thick; the muscles raised; and the hoof short and large.

The ox must be early habituated and made obedient to the voice of his master, and well taken care of. To accustom him to the yoke, he must be taken at a convenient time, and allow himself to be easily led; at two, or at most three, years of age, he must be accustomed to discipline: if it is attempted after this period, he becomes indocile, and often untameable. Patience, kindness, and caresses are the only means that should be employed: force and harsh treatment will increase and perpetuate his obstinacy. He should be used frequently to the touch of the hand, and fed with boiled oats mixed with a little salt, of which he is very fond; his horns should

be tied, to accustom him to the yoke; in a few days, he may drag the plough, with another ox of the same size; he should be tied to his fellow-servant while eating, and they should be led to the same pasture that they may be well acquainted with each other. The goad should never be used in the commencement of his discipline: he must work at intervals, and not be fatigued; he should now also be fed more plentifully, and be better taken care of. The ox should not work longer than from his third to his tenth year; it is best then to take him from the plough and fatten him, for he will make better beef than if he were kept longer. His age is ascertained by his teeth and horns: his feet are cloven, and have not one uniform hoof, like the horse and the ass.

The services of this animal to man do not cease with his life. The hide, by the process of tanning and currying, becomes leather, and furnishes us with boots, shoes, and many other necessaries and conveniences. The hair, mixed with lime, is used in building. The horns are converted into combs, knife-handles, vessels for drinking, and even into lanterns, after they have undergone a process which renders them to a certain degree transparent. This is said to have been the invention of Alfred the Great. From the bones of the ox many convenient articles are

manufactured; distilled, they yield a spirit, similar to that of hartshorn; and, when calcined, they are used by refiners in smelting ores. The blood, according to Evelyn, is an excellent manure for fruit trees; and it forms the basis of the rich and beautiful colour called *Prussian blue.*

An animal so serviceable demands to be well used, and treated with kindness and humanity. The French, who make more general use of the ox, particularly in the draught, than we do, are very attentive to him, and treat him, as indeed they treat all their domestic animals, with more kindness than I have been accustomed to witness on the part of our own countrymen. In France you are very rarely, if ever, shocked by those scenes of cruelty and inhumanity towards the inferior parts of the creation, which are too prevalent among the low and uneducated in our own country—but which the provisions now made by the Legislature will, I trust, materially check; though they may fail, perhaps, to remove them entirely.

No. 3.—THE ASS.

The next figure which solicits our attention is the ass; that humble, quiet, patient animal! See how contentedly he browses upon the thistle, or

crops his hard and scanty meal from the barren moor! But, however satisfied with the coarsest food, he is particularly delicate with respect to his drink. He takes none but the clearest water, and that generally from streams with which he is acquainted. Though greatly inferior to the horse in size and beauty, the ass is by no means to be despised. He will carry heavy burdens, and submit to chastisement with the most patient resignation. If kindly treated, he will return the good offices with cheerfulness, and a willingness to do his utmost in our service; but, if ill-used, he will sometimes cease his efforts, as if in despair of pleasing. Being very surefooted, he is used among the mines of Derbyshire in carrying the mineral treasures of that valuable county through places inaccessible to horses. The low price at which he is usually purchased, and the facility of providing him food, render the ass a valuable acquisition to persons whose occupations consist in travelling about the country with inferior merchandize. Of late he has been in great request at sea-bathing and other watering-places, where the exercise obtained by riding upon these animals is thought peculiary salutary for invalids. I have sometimes seen children riding upon these quiet inoffensive animals, and, am concerned to add, frequently urging them beyond their speed.

Independent of the want of humanity in pressing a poor animal, whose utmost strength is exerted in our service, beyond his powers, this conduct is sure to frustrate all the pleasure you might otherwise have from this amusement; for, though the ass walks, and trots, and gallops, like the horse; yet all his paces are much shorter and slower; and, if forced beyond his natural speed, he will very soon become tired and unable to proceed.

The ass, like the horse, produces only one foal in the year; and, so strong is the parental affection in this commonly despised and ill-used animal, that, we are told by Pliny, if the young one be taken from the mother, she will go through fire to recover it. The milk of this animal is peculiary recommended in consumptive cases; and, when the complaint is not too far advanced, is frequently attended with good effect. It is much thinner, and easier of digestion than that of the cow.

The use of this animal is very frequent in Picardy, in the north of France; and I have seen the principal streets and the very large market-place at Amiens almost lined with them: they are used by the peasantry for carrying themselves and the produce of their lands to market.

Some naturalists have supposed the ass to be

merely a degenerated horse: but this opinion is well confuted by M. De Buffon. Though of the same genus, they are distinct species. The feet of the ass consist of one uniform hoof, like those of the horse, and his teeth are similar; but his ears are remarkably long, his head is large and prone, and his tail almost bare. In his moral qualities also, if I may be allowed the expression, he differs materially from the horse. There is in him none of that ardent spirit and unsubdued courage, which are found in the horse. He is docile, indeed; and gentle, he remembers places where he has been before, and is attached to his master. His sense of smelling is remarkably acute. When young, he is very sprightly, and full of play; but when old, he becomes, generally from ill-treatment, indocile and headstrong. His eyes are good, and his sense of hearing extremely quick, which may possibly account for his being numbered among the timid animals. When overlooked, M. De Buffon observes, he shews his sense of the insult by lowering his head and bending down his ears. The noise he makes, which we call *braying*, is peculiary harsh and dissonant. He is three or four years in arriving at his full growth; and, if well used, will live about twenty-five or thirty years. He sleeps less than the horse, and seldom lies down,

unless much fatigued. His age, like that of the horse, may be ascertained by his teeth.

The ass is originally a native of Arabia; but he has much degenerated by his removal to more northern climates. He is frequently mentioned in Scripture, and seems to have been highly esteemed in Oriental countries, where his services were not disdained by kings and princes. Some idea may be formed of the value set upon this animal by the ancients, from the fear manifested by Joseph's brethren, when they were before him as governor of Egypt, lest he should not only make bondmen of themselves, but also *seize their asses.* The owner of an ass in modern times, it is to be feared, would think little about his *donkey*, if his own person were in danger!

The breed of asses in Spain is still held in estimation, where their size and form are much superior to what they are with us; and, owing probably to the greater care that is taken of them, they are far more docile in disposition, as well as sleeker in appearance.

Mr. Adanson, speaking of the asses of Senegal, says, "with difficulty did I recognize this animal; so different did it appear from those of Europe! The hair was fine, and of a bright mouse-colour; and the black list, which crosses the back and shoulders, had a good effect. These

asses were brought by the Moors from the interior parts of the country."

It is a singular fact, according to Hollingshed, that the breed of asses seems to have been entirely lost among us in the reign of Elizabeth, although mention is made of them as early as the time of Ethelred; that is, almost seven hundred years before the time of Elizabeth; and again in the reign of Henry the Third—upwards of three hundred years before her. To what accident it was owing, that the race became extinct in Elizabeth's days, or when it was again introduced into England, we have no information; though the latter circumstance may be supposed to have taken place in the succeeding reign, when the intercourse with Spain was renewed.

The ass, as well as the horse, appears to have been unknown to the Americans at the time of the first discovery of that continent by Columbus. The breed, however, is now so multiplied, that in Quito the owners of the grounds where they are bred, will permit any one to take as many as he can catch, on paying a small acknowledgment for the day's sport. The manner in which these animals descend the lofty mountains, called the Andes, in South America, is peculiar and interesting. As soon as they approach the brink of the descent, they make a sudden pause, and seem to

ponder the danger of the route; neither can any force impel them forward till, of their own accord, they have prepared for the hazardous passage, by placing their fore-feet in a position calculated to check them in their rapid career, and advancing their hinder feet, so as almost to touch the ground with their haunches. In this position they commence their rapid and truly alarming descent. The rider has only to keep his seat, without in anywise interfering to guide or check the animal; for should he by any means destroy his equilibrium, both must inevitably perish.

These creatures, in their wild state, are peculiary hostile to the horse. Should one stray into their territories, they combine to drive out the intruder; nor will they desist till they have succeeded in either expelling or destroying him.

PLATE II.

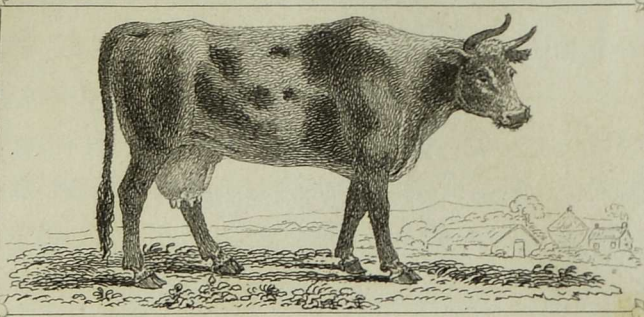
THE COW, THE RAM, AND THE BULL.

We come now to the second compartment: it presents to our view three animals, which, though not subject to labour, are, nevertheless, very important to the necessities, and conducive to the comfort and convenience, of mankind.

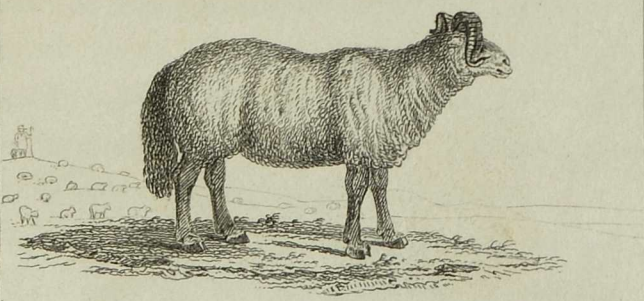
No. 4.—THE COW.

To the cow we are indebted for many of the comforts, and even luxuries of life: she provides us with milk, butter, cheese, and all those varieties of tasteful viands which are composed of milk—such as cream, custards, cheesecakes, and numerous other articles of cookery. The breath of the cow is peculiarly grateful to the smell. There is a great variety in the form of this animal. The Lancashire breed, which is accounted the most perfect with us, is held in the highest estimation. The form of the cow is peculiarly elegant for so large a creature; it resembles that of the ox, excepting that the head and throat are finer and less rough. The horns of the Lancashire cow are large, and form a beautiful curve on each side of the head, inclining downwards; so that, in profile, the eye is visible over the horn. The eye is large and round; the nostrils are wide and open; the throat is peculiarly fine and smooth. The neck and back form one straight line from the head to the crupper; the tail reaches nearly to the ground; the shoulders are large; the hips broad, and flat as a table; the legs fine and short; and the skin, which we call the *dewlap*, reaches from the chest very low between the fore-legs. The udder is large, round, and firm;

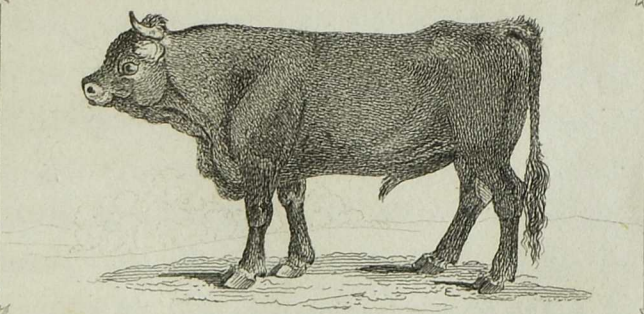
4



5



6



London Pub.d Dec.1.1825, by J. Harris, corner of St. Pauls.

the teats are much separated, and at equal distances, rather inclining outwards; the hair is remarkably smooth and glossy.

The most general colour of the Lancashire cow is red: some, indeed, are black, brindled, white, or spotted; but the red is most approved.

I have seen, in some parts of England, particularly in Hertfordshire, what are called *sheeted cows*: they are commonly red, and marked with a broad stripe of white, extending from the shoulder to the hip, which appears like a white cloth, or sheet, thrown over them. I am not aware that these cows are at all preferable to others in their useful qualities: the only distinction is in the peculiarity of their marks.

The ancient Britons were noted, in the time of Julius Cæsar, for their breed of cattle. He describes the original inhabitants of Britain as living mostly upon milk and flesh, neglecting tillage; and it appears, from the accounts of various early historians, that this preference of pasturage to tillage continued in much later times. It was generally prevalent during the time of the feudal government, which our ancestors received, first from the Saxons, and afterwards from the Normans. As the vassal was obliged to be always ready to take arms at the call of his feudal lord, and attend him in his wars, the occupation

of feeding cattle was much more convenient than that of agriculture; the latter requiring much labour and care, with continued residence on one spot; whilst the former admitted, not to say required, frequent change of place, needed but little management, and was, therefore, better adapted to the sudden demands of his feudal services.

The breed of cattle in Great Britain has been much improved by mixtures from other countries. The Lincolnshire cow derives her size from that of Holstein; and the large kind of cattle, without horns, which are bred in some parts of England, came originally from Poland, and are not unfrequently called *Pollards*.

It is mentioned by Boëthius, an historian of early times, that, about two or three hundred years ago, there was a breed of cattle in Scotland perfectly white, with a mane like that of the lion. A modern writer, who professes to give credit to this account, says he has seen, in the woods of Drumlanrig, in North Britain, and also in the park belonging to Chillingham castle, in Northumberland, herds of cattle, probably derived from this white breed. He acknowledges they have lost their manes; but observes, that they retain their colour and fierceness. They are of a middle size, long-legged, with black muzzles and ears; their horns fine, with a bold

and elegant bend. These cattle were perfectly wild, and, on being approached, would instantly gallop away at full speed. They never mix with the tame species, nor approach a house, unless constrained by hunger in very severe weather. When it is necessary to kill any of these cows, they are always shot; and if the keeper only wound the beast, he is obliged carefully to keep behind a tree; for, otherwise, his life would be in danger from the furious attacks of the animal, which are never desisted from till a period is put to its life.

Pliny mentions a breed of this kind in Germany, which he calls *bisontis*. The breed of the Hercynian forest, described by Cæsar, was also of this kind. It is called by the modern Germans *aurrik;* that is, *bos sylvanus*, or the *wood-ox*, and it was probably common to our island and the northern parts of the continent of Europe. Our savage cattle are frequently mentioned by historians. A large forest, in the neighbourhood of London, contained a great number of these animals, which are called by Fitz-Stephen, a monk, who lived in the reign of Henry II. *uri sylvestris.* The celebrated Robert Bruce is said to have been rescued, during the chase, from the attack of one of these animals by an attendant, who, from this circumstance, acquired the surname of *Turnbull.*

There is also a smaller breed of cattle in Wales, and in the Highlands of Scotland, which was probably the original tame breed in our island, until improved by a mixture with those from the Continent.

Virgil, the most admired poet of his time, who flourished during the reign of Augustus Cæsar, (which period, from its fertility in excellent writers, and from the encouragement given to eminent men by the emperor and his court, has been styled *the Augustan age*), gives, in his third *Georgic*, instructions for breeding cattle. The poet recommends that such calves as are to be brought up should not be taken from their mothers, but enjoy the full advantages which nature has designed for them. "Let not," says he, "your fruitful cows, as in the days of our fathers, fill the pails with snowy milk; but let them bestow all the contents of their udders on their beloved offspring." This he recommends as the best means of raising a large and strong race of cattle.

No. 5.—THE RAM.

The second figure in this compartment represents the ram, or male sheep. Of all the animals domesticated by man, this appears to be the most

timid and helpless; so much so, that M. De Buffon finds it difficult to imagine how it could have existed without man's help and defence. The numerous enemies by which it must have been surrounded, to whom its flesh afforded a delicious repast, and against whom it had no means of resistance or of flight, renders it improbable that this animal could have multiplied in a wild and savage state.

The sheep, like the ox and the cow, shews no particular attachment to its master. The services which these animals render to man are not of a kind to require that peculiar affection which seems inherent in other domesticated animals.

The sheep is gregarious; and it is a beautiful sight to view the green hills of our native country covered with numerous flocks; and, in the calm of a summer's evening, an indescribable sensation is excited by the tinkling of the bell which is commonly tied round the neck of the ram, the leader of the flock. The noise of this bell serves not only to protect them from the fox, but it also keeps them from straggling too far on open and extensive commons; for they are fond of this tinkling sound, and usually keep within hearing of it.

From the description given of the inhabitants of Britain by Julius Cæsar, it does not appear that the breed of sheep was cultivated amongst

them for the sake of the wool. Our ancestors, in those early times, wore no clothing, except the skins of beasts, which they threw over their naked bodies unprepared by art; the hair, or wool, being turned inwards, in order to defend them more effectually from the cold of their humid and variable climate. Indeed, for a long period, the manufacture of woollen cloth was unknown in our island; and it was the custom to export the wool to foreign countries, and to import the cloth manufactured from our own materials. In the reign of Henry II. a patent was granted to the weavers in London; which directed that, if any Spanish wool was found mixed with that of our own growth, in the cloth manufactured abroad, it should be burnt by the mayor. In the reign of Richard III. and in the two succeeding reigns of Henry VII. and Henry VIII. our woollen manufactures received some improvement; but it was not till the reign of Elizabeth that it acquired its greatest increase, when it became the staple manufacture of our country. From that period to the present it has gone on, continually increasing in beauty and demand; and the woollen cloths of Britain now rival the most beautiful and finest of France. The tyranny of the Spanish government, under the Duke of Alva, drove many of the artificers of the Low Countries, at that time under the dominion

of Spain, into England, where they received every encouragement from that wise princess, who then swayed the British sceptre. These persons may be esteemed the founders of that immense branch of our commerce, which has since extended itself over almost every part of the civilized world.

The breeds of sheep in Great Britain vary much, both as to the size of the animal and the fineness of the wool. The finest fleeces are produced in Herefordshire, Devonshire, and on the Coteswold Downs, commonly called the *South Downs:* Lincolnshire, Warwickshire, and Leicestershire, produce the largest sheep. In the norther parts of our island, the fleeces are not so fine as those of the south; but they are very serviceable in the manufacture of the coarser cloths. The wool taken from the neck and shoulders of the sheep which feed on the Yorkshire hills, mixed with some Spanish, is used in the manufacture of our finest cloths.

The sheep which feed on the mountains of Wales are much smaller than those of England, and produce a coarser kind of wool, but are highly esteemed for the fine flavour of their flesh, which is reckoned superior to any that is bred in other parts of Great Britain. I must not, however, omit to mention the superiority of the Welsh

flannel over that of any other country. This is a branch of the woollen manufacture which we look for in vain on the Continent, and which has hitherto been entirely confined to the wool produced in Wales.

In Scotland the breed of sheep is in general small, and their wool coarse.

In Ireland the breed varies as much as in England.

Spain produces the finest wool; but the indolence of the people, and the unaccommodating genius of their government, has hitherto prevented them from arriving at any superiority, or even rivalry of the cloths of England and France. It is in this country, however, that the sheep are tended with the greatest care; they are led through a vast range of mountainous districts for change of pasture and climate; and in winter they are covered with skins, to protect the growing wool from the cold, which would materially affect its quality as to softness and fineness of texture. In these pastural journeyings, the docility and peculiar properties of this animal appear in a very striking manner:—led by the sound of the bell, suspended from his neck, they follow their leader without hesitation or fear; and it is a remarkable property of the sheep, that, when one of the flock has been compelled to enter a pass, the rest follow

without trouble or control, and will leap down a steep bank into the water, although that element is contrary to their usual habits.

The breed of sheep varies much in the different provinces of France, both as to the fineness of the wool, and the flavour of the meat. The sheep of Picardy, Normandy, and the provinces bordering on the sea, are esteemed the best.

In the southern parts of Africa, there is a kind of sheep remarkable for the great length and breadth of their tails. I have been told, by persons who have visited the Cape of Good Hope, that the tails of these animals, which trail to a considerable length upon the ground, and are very broad and fat, are considered by the inhabitants as a great delicacy. I have frequently, in our own country, eaten pies made of lambs' tails, which are cut short when the animal is very young; and, were they not too fat, would be very nice and delicate food.

Among the ancients, the milk of sheep afforded a very considerable part of their diet. This milk is much richer than that of the cow: so that, I have been told, in some places it cannot be made into cheese, without being first diluted with water. The wealth of the ancients consisted principally in their numerous flocks. Abraham, who lived about 1996 years before Christ, was

"exceeding rich in flocks and herds;" and, in enumerating the wealth of the patriarch Job, the sacred historian informs us that he possessed seven thousand sheep. The office of a shepherd was dignified by the example of David, who was taken from the sheepfold to be anointed king over Israel; and many of his most beautiful Psalms derive much of their ornament from allusions to his pastoral life and office.

Not only are the wool and the flesh of this animal greatly beneficial to man, but the skin also, when properly prepared, forms various parts of dress, and covers for books; even the entrails are made into strings for musical instruments, which we commonly, but erroneously, denominate *catgut.* The dung of the sheep is also much sought after for manure: hence the practice of folding them is considered a very useful branch of husbandry.

The young of almost all animals with which we are acquainted are interesting in their appearance; but those of the sheep are remarkably so: there is an innocence and playfulness in their countenance and manner, which it is impossible to contemplate without the most pleasing sensations of kindness and delight. I have stood for hours watching their little gambols, when the lambs have collected together on a green knoll to commence their sports: they sometimes station

themselves all in a row; when, as if at a given signal, they start on a sudden in the race, and scamper over the plain, or round the hill, with extraordinary rapidity;—presently they hear the bleating of their mothers, when each runs to his own dam, obedient to her well-known voice. Although these animals so much resemble each other, that it seems impossible to distinguish them individually, yet the shepherd knows each sheep by its countenance; and, I have been told, if persons who are not conversant with them were to examine their faces with attention, they would perceive a manifest difference between them.

These animals are subject to a variety of diseases; they are apt to be affected with a distemper called *the rot*, owing to the dampness of their pasture; and sometimes an unusually wet season will bring on this disorder, even on the higher grounds. They are subject also to what is called *the maggot*, which is found in the head of the animal, a little above the nose, causing great pain, and ultimately death. The shepherds in France have a custom of trepanning the animal, and so relieving it from the insect. I have been told that this operation is sometimes practised in our own country, but not with the same success. Water in the head is also common to them at an earlier period. Virgil, in his third *Georgic*, where he

treats of cattle, gives peculiar directions respecting the management of sheep, which require all the care and attention that a good shepherd can bestow upon them. The poet represents, in a style that raises the subject into importance, the various diseases to which this animal is subject, with the different modes of cure practised in his time; and concludes with an earnest exhortation to prevent the contagion spreading among the flock, by cutting off the first sheep in which the symptoms of disease begin to appear. "If," says he, "you ever see one of your sheep stand at a distance, or often creep under the mild shade, or lazily crop the tops of the grass, or lag behind the rest, or lie down as she is feeding in the middle of the plain, and return alone late at night, immediately cut off that faulty sheep, before the dreadful contagion spreads itself over the unwary flock."

The rams generally have horns, which are frequently twisted into grotesque forms. They have eight cutting-teeth in the lower jaw, but none in the upper. They eat very close to the ground; and a pasture in which the horse and the ox would starve is sufficient to fatten sheep.

One of the gayest rural scenes in our green and happy country takes place at the time of shearing the sheep. This is so beautifully described

by our native poet, Thomson, that I am sure you will thank me for repeating the whole passage to you:

"Or, rushing thence in one diffusive band,
They drive the troubled flocks, by many a dog
Compelled, to where the mazy-running brook
Forms a deep pool; this bank abrupt and high,
And that fair spreading in a pebbled shore.
Urg'd to the giddy brink, much is the toil,
The clamour much, of men, and boys, and dogs,
Ere the soft fearful people to the flood
Commit their woolly sides. And oft the swain,
On some impatient seizing, hurls them in:
Emboldened, then, nor hesitating more,
Fast, fast they plunge amid the flashing wave;
And, panting, labour to the farthest shore.
Repeated this, till deep the well-washed fleece
Has drunk the flood; and, from his lively haunt,
The trout is banished by the sordid stream:
Heavy and dripping, to the breezy brow
Slow move the harmless race; where, as they spread
Their swelling treasures to the sunny ray,
Inly disturb'd, and wondering what this wild
Outrageous tumult means, their loud complaints
The country fill; and, toss'd from rock to rock,
Incessant bleatings run around the hills.
At last, of snowy white, the gathered flocks
Are in the wattled pen innumerous press'd,
Head above head; and, rang'd in lusty rows,
The shepherds sit, and whet the sounding shears.
The housewife waits to roll her fleecy stores,
With all her gay-drest maids attending round.
One, chief, in gracious dignity enthroned,

Shines o'er the rest, the pastoral queen, and rays
Her smiles, sweet beaming, on her shepherd king;
While the glad circle round them yield their souls
To festive mirth, and wit that knows no gall.
Meantime, their joyous task goes on apace:
Some, mingling, stir the melted tar, and some,
Deep on the new-shorn vagrant's heaving side,
To stamp his master's cypher, ready stand:
Others, the unwilling wether drag along;
And, glorying in his might, the sturdy boy
Holds by the twisted horns th' indignant ram.
Behold where bound, and of its robe bereft
By needy man, that all-depending lord!
How meek, how patient the mild creature lies!
What softness in its melancholy face!
What dumb-complaining innocence appears!
Fear not, ye gentle tribes! 't is not the knife
Of horrid slaughter that is o'er you waved;
No, 't is the tender swain's well-guided shears,
Who, having now, to pay his annual care,
Borrowed your fleece, to you a cumbrous load,
Will send you bounding to your hills again."

No. VI.—THE BULL.

Observe the next animal, the bull: take notice of the sullen yet majestic character of his front and head; the huge dimensions of his shoulders; the depth of his chest, which seems to sweep the ground; his clear round eye, dazzling with its fire; his neck—the seat of strength and power!

He seems to tread the plain, as conscious monarch of the herd!

This animal is held in high estimation by the breeders of cattle. Great care is taken in selecting him, when very young, for his shape and colour: the red is generally most sought after. He is permitted to accompany his mother, and participate unsparingly of the milk which she affords for his sustenance. He is turned into the best pasture; and, in winter, is well protected, and fed with the sweetest hay. Under this management, he increases rapidly in size and beauty.

When young, he is playful, like all other animals, but is apt to become mischievous as he grows up; nor is it always safe to play with him. And, although I would discountenance unnecessary fears, yet I think it prudent for young persons to avoid putting themselves in his way. I have heard of several unfortunate accidents having arisen from too great unwariness in this respect, which prove that this animal is not to be trusted.

I remember a very remarkable story of this kind, which shews a wonderful sagacity in the animal: I was told it by a person who was witness to the transaction, and whose testimony I have no reason to doubt. A dairy-maid, whose occupation led her to a constant familiarity with

cattle, was one day missing: the usual time for her return had elapsed, and she was sought for in the cow-house; where, shocking to relate, she was found quite dead, having been dreadfully gored by the bull, which she had been in the habit of seeing every day, and even feeding. The animal, as if aware of the mischief he had done, had actually endeavoured to conceal the body by covering it with straw, and was standing quite still by the side of the corpse. I have heard of several instances of the ferocity of these creatures; but I mention this as being well authenticated, and as sufficient to point out the danger of too great familiarity with them.

I have been told that the best manner of escaping from this creature, if attacked in a field where there are no trees nor other shelter, is by taking off your coat, or cloak, and hat, and throwing them on the ground directly in the path of the pursuing animal: he will probably turn his rage and attack upon them; but, if this mode should fail, your only chance of safety is in lying down flat, with your face to the ground, and holding your breath, keeping perfectly still. The animal, I have been told, will come up and smell at you; but, if you remain quite quiet, he will not harm you. I cannot answer for the truth of this statement; and I mention it merely as a forlorn hope—

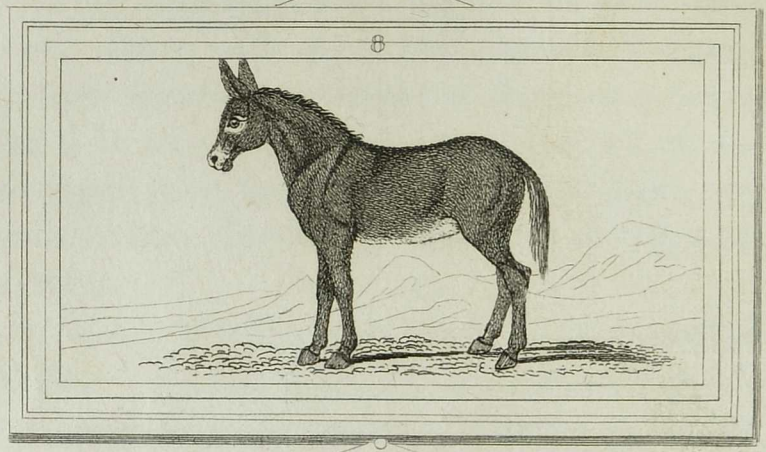
as a thing to be tried, when no other possible means of safety appears.

There is a very singular relation, which I have met with, of uncommon presence of mind, exerted by Mrs. Day, mother of the celebrated author of *Sandford and Merton*, that was, under Providence, the means of preserving herself and a lady who was with her, from being, in all probability, killed by a bull. Her companion was extremely alarmed, and ran for her life; Mrs. Day, convinced that no security was to be found in flight, turned round, and faced the enraged animal. The bull continued to advance until within a few paces; Mrs. Day retained her positionwith firmness, looking the animal directly in the face. He stopped; she retreated slowly, walking backwards, and still facing her adversary; he followed, but without increasing his pace. In this manner she continued her retreat, until she came to a fence, which she immediately climbed over, and thus got beyond his reach.

In some parts of England there is a very cruel and barbarous custom of *baiting* this fine animal with dogs. The dogs selected for this inhuman sport are called *bull-dogs;* they are a peculiar breed, something resembling the mastiff, but not so large; and extremely fierce. They usually fly at the nose, where they will hang till

taken off by force, or killed by the poor tortured animal. The bull destined for this ferocious pastime—a pastime at variance with every humane feeling—is fastened to a stake by a strong rope or chain tied to an iron ring passed through the cartilage of the nose. The dogs, who enjoy the sport as much as the savage thoughtless beings who surround the poor suffering animal, and who call themselves *men*, are then let loose upon him. Stung with pain and anguish, the poor fettered animal is tortured into madness. Sometimes, in an agony of rage, he will exert all his strength, burst the bonds that confine him, and rush among the throng assembled to enjoy his misery.

There is another species of barbarity exercised against this noble animal, called *bull-running*. It was once an annual custom at Titbury, in Derbyshire: the bull was turned loose in the castle-yard, where, tormented with sticks and stones, he was goaded on, till, in his fury, he turned upon his tormentors, tossing some and trampling down others in his course. By an accident, which I cannot possibly call unlucky, he threw one of them down the well in the castle-yard; and, from that period, the barbarous custom has been discontinued.



London Pub.d Dec.1.1805. by J. Harris, corner of St. Pauls.

The only place where it is now kept up is at Stamford, in Lincolnshire, where this unmanly and inhuman sport throws the whole town into an uproar on the 13th of November, which is called the *bull-running day.* On this day, the poor animal is driven through the streets by its persecutors, till, overcome with fatigue, and his feet bleeding from the stones, he falls an unresisting prey to his cruel tormentors.

PLATE III.

THE ZEBRA, THE MULE, AND THE NYL-GHAW.

No. 7.—THE ZEBRA.

This animal, which in its form very much resembles the mule, is beautifully marked with red, yellow, blue, black, and white stripes; its ears are long, and its tail is somewhat bare. It is a native of Africa and Egypt, and feeds entirely on vegetables; and so much resembles the ass of the fine Spanish breed, both in figure and size, that it is sometimes called the *striped ass;* but it is a wild animal, and not subject to the control of man.

No. 8.—THE MULE.

The mule, a very hardy and useful animal, partakes of the nature of both the horse and the ass, but has a greater resemblance to the latter, particularly in the length of the ears and the bareness of the tail. This animal is very highly esteemed in Spain, where it is purchased at a considerable price, and used both for riding and the draught, by the grandees and persons of wealth and distinction. The mules bred in that country are greatly superior to our's, both in size and beauty. You can form but a very inadequate idea of the Spanish mule, with its rich and costly furniture, pacing under a grandee of that proud and once-flourishing country, from the poor, rough, ill-fed, and ill-used animal of the same kind, which you see amongst us, in the service of some low and brutal master, tottering under its unequal burden, and beaten because it cannot perform impossible services.

This animal is remarkably sure-footed, and is used to traverse roads among rocks and precipices impracticable to the horse. The magnificent route over the Alps, between France and Italy, which was made by the order of Buonaparte, late emperor of France, to facilitate his expeditions into the latter country, has rendered the commu-

nication over those formerly almost inaccessible mountains, easy and safe; and has superseded the use of the mule in that once dangerous service. The guides, on these occasions, used to direct the traveller to shut his eyes, and let the reins fall loose and untouched upon the neck of the animal, depending entirely upon its sure-footedness along the rough and narrow path over precipices, in looking down from which the head turns giddy, and where the slightest check with the rein might, by disconcerting the equipoise of the animal, precipitate both it and the rider to inevitable destruction.

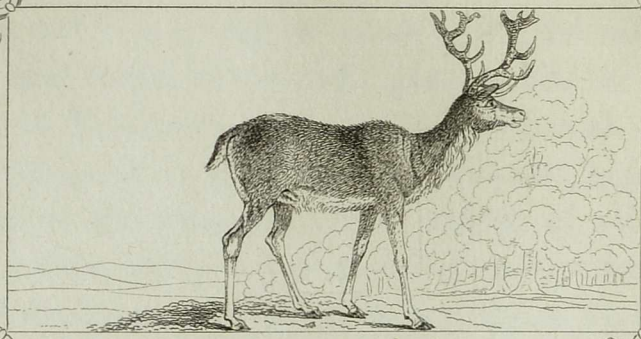
The poor mule has obtained the reputation of obstinacy and sullenness, and perhaps not without some reason; but this temper is probably, as in the case of the ass, much increased by ill-treatment.

No. 9.—THE NYL-GHAW.

This animal, which is sometimes called the *antelope picta*, and the *horned horse*, is remarkable for its form and beauty. The horns are bent forwards; the neck and part of the back are ornamented with a short mane; the fore part of the

throat has a long tuft of black hair; the tail is long and tufted at the end. He inhabits the interior of Hindoostan, far beyond the British settlements; and is generally four feet one inch in height at the shoulder. The male is of a dark grey colour, with short horns, which have a triangular direction. On the neck, just above the tuft of hair, is a large white spot; another between the fore legs; one on each side, behind the shoulder; one on each fore foot; and two on each hind foot, above the hoof. The female has no horns, and is of a pale brown colour, with two white and three black bars on the fore part of each foot, immediately above the hoof. The female has also a short black mane, and the tail is tufted, like that of the male. The ears of both are large, white on the edges and the inside, and similarly marked with two transverse black stripes. The Indian name for this animal, *nyl-ghaw*, signifies *blue* or *grey bull*, whence some writers have erroneously placed it in the genus *Bos*. Several of them were brought to England in 1767, and they bred annually in Lord Clive's park. Dr. Hunter kept one for a considerable time, to ascertain its genus and character. It is usually very gentle and tame, feeds readily, and will lick the hand that caresses it. In confinement, it will eat oats, but prefers grass and hay, and is remarkably fond

10



11

12

London Pub.d Dec.1 1825, by J. Harris, corner of St. Pauls.

of wheaten bread; when thirsty, it will drink as much as two gallons at a time.

When the males fight, they drop on their knees, at a distance from each other, make their approaches in that attitude, and, when they come near, dart violently at each other. They will often, in a state of confinement, fall into that posture without doing any harm. Pennant calls this animal the *white-footed antelope*, and says it is an object of the chase with the Indian princes, who set a high value on its flesh.

PLATE IV.

THE STAG, THE ELK, AND THE REINDEER.

No. 10.—THE STAG.

Observe the first figure in this compartment, the stag. Take notice of his grand and lofty port; the lightness and beauty of his form, the elegant adjustment of his limbs, how taper, and yet how full of nerve. Observe his head, how small and delicately proportioned, and ornamented with large branching horns. Contemplate the meek yet sprightly character of his interesting countenance, his round sparkling eye,

mild, yet clear and brilliant; his ears small and well set; his mouth—one almost fancies he can speak! May he not well be denominated the king of the forest, where he roams at large, free and uncontrolled? In the morning and evening you may see him browzing in the green glades; he withdraws himself from the mid-day heat, and lies ruminating under the dark thick shade of some lofty oak, which appears like his sylvan palace.

The stag is larger than the deer, which you may see in the numerous parks that adorn our island. He is sometimes kept in paddocks, separate from other animals; but he frequently becomes vicious in this state of seclusion.

Stag-hunting is esteemed one of the finest of our field sports; and the fleetest hounds and horses are required to follow the game. Bounding over hill and dale, he seems scarcely to touch the ground, as he flies along the plains, leaving his enemies and the fearful cry of the pack far behind him. At length, however, perseverance overcomes speed; he stands at bay, facing his pursuers, and vainly butting with his horns against the attacks of his ferocious enemies; who, pressing upon him, with direful yells seem to demand their prey. It is then, in the beautiful language of our sylvan poet,

"The big round tear steals down his dappled face."

But here his alarm is at an end; the huntsman gives the word, and not a hound, so well disciplined is the pack, advances a step towards their noble prisoner. He is taken alive, and safely conveyed in a cart to his old residence: to undergo, at a future day, a repetition of the same alarming pursuit.

M. De Buffon gives a very extraordinary account of the horns of this animal, which, he says, have no resemblance to the horns of other animals. The horns of the stag are solid throughout, and grow from the upper extremities; whereas those of all other animals with which we are acquainted are hollow, and grow, like the hair on the body of quadrupeds and the feathers of birds, from the lower parts, near the body. The horns of the stag drop off every year, when they have attained their full growth and solidity; those of other animals continue to increase till the animal arrives at a certain age, which may be estimated by the number of rings on its horns. The large branches on the head of the stag resemble those of a tree, and are covered with a fine soft substance, like moss. M. De Buffon asserts them to be a vegetable substance, totally unconnected with the skin or hair of the animal, from which, though they draw their nutrition, they are quite distinct; and the French name, *du bois*, by which

this grand ornamental appendage to the head of the stag is designated, sufficiently declares the opinion of the French naturalists on this subject. This opinion is strengthened by those of Aristotle, Pliny, and Theophrastus. The stag is naturally long-lived. If not subject to accidents, he will live thirty-five or forty years.

The general colour of this animal is a yellowish brown. Some are altogether brown; some red, or bay. The white stag is very rarely to be met with. Aristotle and Pliny mention some that were black; but it does not appear that these last were more common than they are now. The colour of their horns resembles that of their hair.

No. 11.—THE ELK.

The elk, or moose, is a very large animal, with large branching horns, like those of the stag. It is an inhabitant of the northern countries, and is very difficult to be taken. The chase takes up two or three days in the vast range of woods with which those countries abound. The hunters pursue it by its track in the snow.

It is a very lazy animal, and will usually lie in the same place as long as it has any thing to feed on, or until it is disturbed by the hunters; but,

when once roused, it will run day and night, until it drops down, quite overcome with fatigue. The flesh of the elk is exceedingly good; the natives have a method of drying it, in which state it will keep its flavour for twelve months. The tongue and nose of this animal are esteemed great delicacies.

The elk, though a large-sized animal, makes no defence against the hunters, but suffers itself to be taken without resistance.

M. De Buffon says, that the skin of this animal is so tenacious, that "a musket ball penetrates it with difficulty."

No. 12.—THE REINDEER.

The reindeer is a fine and beautiful animal; and, like the elk, a native of the north; but not so large as the elk. It is remarkably gentle, exceedingly docile, and forms the chief wealth of the inhabitants of Greenland and Lapland. They clothe themselves with its skin; it supplies them and their families with milk; and its flesh affords them most excellent food. Fastened to a sledge, the reindeer will drag his master, with almost incredible velocity, a journey of many miles over the frozen snow, which, for more than three parts

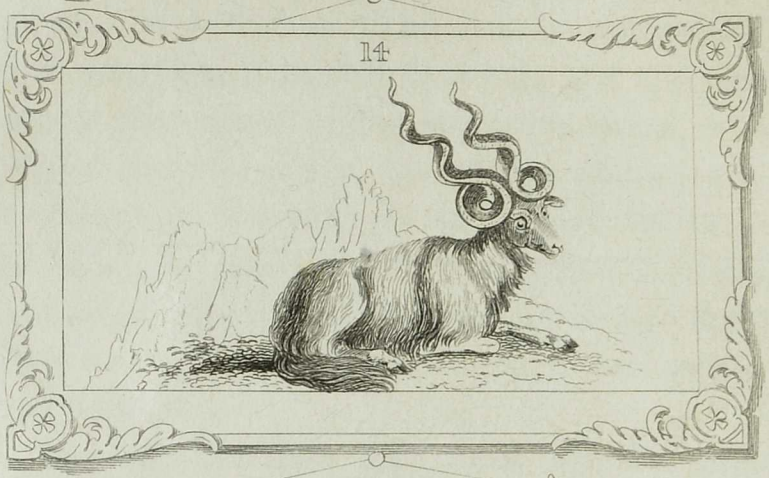
of the year, covers the whole face of their country. A rich Laplander will keep four or five hundred of these animals, and a poor peasant not less than ten or twelve.

The reindeer, though not so tall as the elk, is more strongly formed. Its feet are very large; its hair is remarkably thick. The horns, of the same substance as those of the stag, are longer and extremely beautiful, and divided into a great number of branches. The neck is ornamented with long hair; the tail is short; the ears are longer than those of the stag; the colour is a reddish brown. From its extreme docility and usefulness, it is treated by the simple inhabitants of those cold countries with the utmost kindness and affection, as one to whom they owe all their little comforts, and the sole source of their wealth and happiness.

The reindeer does not bound, like the stag. His pace is a kind of trot, but so swift and easy, as to give no fatigue to the traveller. This animal, in its wild state, usually frequents the mountains; but seems to delight in domesticating itself with man. The Laplanders have no other cattle. In these cold regions, where the snow lies upon the ground from the beginning of autumn till the end of spring; and where the brier, the juniper shrub, and moss, form the only verdure

13

14



15

London Pub.d Dec.1 1825, by J. Harris, corner of St Pauls

of their short summer, the horse, the ox, and the sheep would perish for want of food, unable to resist the extreme rigour of the climate.

The reindeer has a singular method of defending itself from the wolf, not with its horns, but with its feet. The feet of this animal, as I have observed, are very large, and with these it beats the wolf, with such force and violence, as to stun it, and compel it to flee with all the swiftness of which it is capable.

The most dangerous enemy to the reindeer is the rosomah, or glutton, of the North. This voracious animal climbs into a tree, from which it throws itself upon the reindeer as it passes beneath, fixing its teeth and claws into the neck and back: no efforts of the agonized animal are capable of removing it, and there it clings until it has killed its prey.

PLATE V.

THE GOAT, THE WALLACHIAN RAM, AND THE CHAMOIS.

No. 13.—THE GOAT.

This animal contributes, in various instances, to the necessities of human life: it furnishes us

with food, medicine, and clothing. Mr. Pennant observes that the whitest *wigs* are made of goat's hair. Their milk is not only nutritive, but highly medicinal, and is frequently recommended in consumptive cases.

The goat delights in mild and mountainous countries: the finest and largest goats in our island feed upon the Welsh mountains, where their general colour is white. Mr. Pennant mentions having seen the horns of a Welsh goat, which were three feet two inches in length.

The flesh of this animal is very palatable, and that of the young kid is much esteemed for the delicacy of its flavour. The most beautiful gloves are manufactured from the skin of the kid, or young goat.

The odour of this animal, which is very strong and unpleasant, is thought to be a preventive against infection among cattle. Horses are fond of goats, and they are frequently kept in stables.

This animal is more common in France than with us. In that country, you never see a flock of sheep unaccompanied by a goat; and every peasant, who can maintain a cow, has always a goat feeding with it.

The goat, like the sheep, is a ruminating animal: he feeds upon the tops of the grass, and the tendrils of young plants. He is remarkably active,

and will take the most surprising leaps from one precipice to another, where he may be seen balancing himself almost upon a point. Mr. Pennant says, that two of these animals, yoked together, will safely take the most astonishing leaps in concert.

The original species of this animal, according to the same authority, is the *stein boc*, *ibex*, or *wild goat*, now found only in the Alps and in Crete.

M. De Buffon observes, that these animals, in the warmer climates, are generally smaller than those which inhabit the more northern and temperate climates of Europe; and that the goats of Angora and Syria have their ears hanging down, and their horns growing horizontally, or down the sides of the head.

No. 14.—THE WALLACHIAN RAM.

The neck and breast of this animal are ornamented with a kind of ruff, of red and grey hair, about six inches long, and very harsh to the touch. It has also a mane, extending along the upper part of the neck to the middle of the back, shorter than the former, and mixed with brown and black hair. The wool upon the body is thick and soft, and a little frizzled at the end,

but straight and rough nearest to the skin: it is commonly about three inches long, and of a clear yellow colour. The legs are of a deep red colour; the head is spotted with a yellowish white. The tail is very large, somewhat resembling that of the cow, but well covered with hair at the extremity: the colour a yellowish white. This ram is shorter in the legs than any other with which naturalists have been able to compare it: they most resemble those of the Indian rams. The belly is very large, reaching within fourteen inches of the ground. The horns are pretty nearly the same as those of many of the same species in France and Spain: the hoofs are not turned upwards, as in other sheep, and are much larger than those of the Indian ram.

This animal will live in almost all climates, the wool differing in length and softness, according to the temperature of the atmosphere.

The wild rams of Kamptschatka, Mr. Steller observes, have the gait of the goat, and the wool, or hair, of the reindeer. Their horns are long and large: some have weighed from twenty to thirty pounds. The natives manufacture them into vases, spoons, and various other utensils. These animals are as lively and active as the goats, and, like them, inhabit mountains and precipices. Their flesh is extremely delicate, and

usually fat on the back; but the wool is the principal object of the hunter.

No. 15.—THE CHAMOIS.

The chamois is a wild goat, inhabiting the lofty mountains of the Alps and the Pyrenées. It lives upon the flowers and grass which grow among those prodigious hills, and is remarkably shy and timid: it is streaked down the back like a fawn. From its great agility, and the inaccessible places which it inhabits, it is very difficult to be taken.

The skin of the chamois is used by the natives of those countries which it inhabits, for the purpose of conveying wine, oil, and other liquids, to the neighbouring markets. It is converted also, when properly prepared, into gloves and other articles of clothing; it will take any colour, and may be washed like linen, without the slighest detriment.

A stone, sometimes found in the bladder of this animal, is much esteemed by the Germans for its reputed medicinal virtues: it is called *the German bezoar*.

This animal affords a considerable quantity of volatile oil and salts, which are of great use in medicine.

PLATE VI.

THE MUSK, THE ANTELOPE, AND THE CHEVROTAIN.

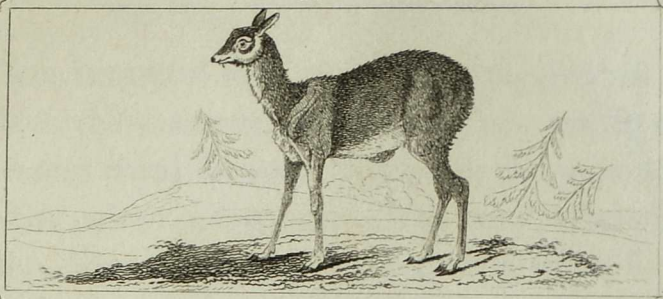
No. 16.—THE MUSK

Resembles, in shape and colour, the hind, or female stag. It is a native of the East, and found in Boutan, Tonquin, and many other parts of Asia. It inhabits the woods and forests, and is much esteemed by the natives, who hunt it for the sake of a bag, or pouch, about the size of a large egg, which grows under its belly. The blood, or liquor, contained in this bag, when dried and properly prepared, constitutes a considerable article of commerce, and is what we call *musk*. It is much used as a perfume, as well as a medicine.

The time of hunting these animals is in the beginning of summer, when the musk yields the strongest odour, and is esteemed to be in the greatest perfection. One of these animals will yield only three drachms of musk.

There are many other animals in these parts of Asia, which yield musk, particularly in the kingdom of Boutan.

16



17

18

London, Pub^d Decr 1 1825, by J. Harris, corner of St Pauls.

No. 17.—THE ANTELOPE.

This beautiful animal, in its form, greatly resembles the common deer, which you see in our parks and royal forests. It is about the same size, of a bay colour, except under the belly, where it is white. The horns are twisted in a spiral form, and have a very singular and pleasing effect. The eyes are large, black, and full of vivacity; the neck, feet, and legs, are long and slender. It is remarkably swift of foot, and will outstrip the fleetest greyhound.

The antelope by far excels, in form and beauty, most of the animals with which we are acquainted; and is usually found in herds after the manner of the common deer.

No. 18.—THE CHEVROTAIN.

This elegant little animal resembles a deer in the form of its body, head, muzzle, tail, and legs; and, like that animal, it is extremely light and active in all its movements.

Travellers, who have given accounts of this animal, say that some have horns, and others have none. Some again assert that the male only has horns, and that the female has none. M. De Buffon collects from these various accounts, that

there are two distinct species of the Chevrotain; the one, belonging to the Indies, with horns—the other, of Senegal, without them.

These animals live only in warm climates. They are brought to Europe with considerable difficulty, and live but a short time. They are very gentle, familiar, and extremely pretty; and the smallest of all cloven-footed animals yet discovered. They produce two young ones at a time. The skin of the chevrotain is beautifully waved, or sprinkled, with black upon a deep musk-coloured ground, with three white bands, or fillets, distinctly marked on the chest.

They cannot run for a long time together. The Indians take them by coursing; the Negroes chase them, and knock them on the head with clubs, or the *zagaio*, or long dart, used by the Moors. Their flesh is very delicious food.

PLATE VII.

THE FOXHOUND, THE SPANIEL, THE TERRIER, AND THE GREYHOUND.

Before we enter upon an explanation of the peculiar nature of the four species of dogs with which this compartment presents us, I will give

you a short account of what M. De Buffon relates respecting this animal in general.

"The dog," says this ingenious and justly celebrated naturalist, "independent of his beauty, vivacity, strength, and swiftness, has all the interior qualities which can attract the regard of man. The tame dog comes to lay at his master's feet his courage, strength, and talents, and waits his orders to use them. He constantly interrogates and beseeches; the glance of his master's eye is sufficient; he understands the signs of his will. Without the vices of man, he has all the ardour of sentiment; and, what is more, he has fidelity and constancy in his affections; no ambition, no interest, no desire of revenge, no fear but of displeasing his master. He is all zeal, all warmth, all obedience; more sensible to the remembrance of benefits than of wrongs, he licks the hand which inflicts pain on him. He only opposes punishment by his cries, and at length entirely disarms anger by his patience and submission. More docile and flexible than any other animal, the dog soon conforms himself to the motions, manners, and habits of those who command him. When the care of the house is intrusted to him during the night, he becomes even furious; he watches, he walks his rounds, he scents strangers afar off; and, if they happen to stop, or attempt to break

in, he flies to oppose them, and by reiterated barkings, efforts, and cries of passion, he gives the alarm. As furious against men of prey as against devouring animals, he flies upon, wounds them, and takes from them what they were endeavouring to steal; but, content with having conquered, he casts himself on the spoil, and will not touch it, even to satisfy his appetite, giving at once an example of courage, temperance, and fidelity.

"This animal is of the greatest importance in the order of nature. Without the assistance of the dog, how could men have been able to discover, hunt, and destroy, wild and noxious animals? To keep himself in safety, to render himself master of the living universe, it was necessary to make himself friends among animals, in order to oppose them to others. The first art, then, of mankind was the education of dogs; and the fruit of this art was the conquest and peaceable possession of the earth.

"The dog may be said to be the only animal whose fidelity to man can be put to the proof; the only one which perceives the approach of an unknown person; the only one that always knows his master and his friends; the only one that understands his own name, and answers to the domestic call; the only one which, when he has lost his master and cannot find him, calls him by

his lamentations; the only one that, in a long journey—a journey which, perhaps, he has been but once—will, if lost, or taken from his home, remember the way, and find the road back to his owner; the only one, in short, whose talents are evident, and which is susceptible of every good impression."

Our own poet, the amiable Gay, in his beautiful and instructive fable of the *Shepherd and the Philosopher*, thus describes this grateful attendant on man:—

> My dog, the trustiest of his kind,
> With gratitude inflames my mind;
> I mark his true and faithful way,
> And in my service copy Tray.

The finest heathen poet of antiquity, Homer, gives the most touching and pathetic description of the constant faithful friendship of this domestic animal, that is to be met with in any writer, ancient or modern; and few persons can read it without emotion. Relating the return of Ulysses to his kingdom and home, after an absence of twenty years, and in disguise, the poet thus paints the faithful Argus:—

> He knew his lord; he knew, and strove to meet,
> In vain he strove to crawl and kiss his feet;
> Yet (all he could) his tail, his ears, his eyes
> Salute his master, and confess his joys.

* * * * *

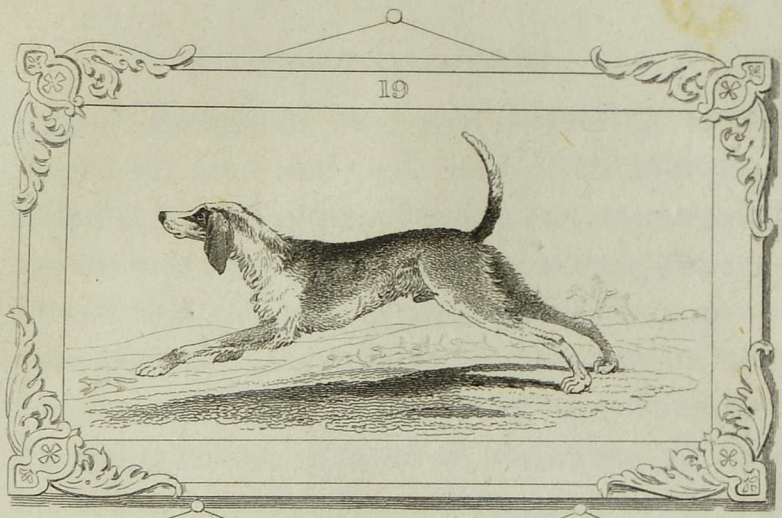
The dog, whom fate had granted to behold
His lord, when twenty tedious years had roll'd,
Takes a last look, and, having seen him, dies:
So clos'd for ever faithful Argus' eyes!

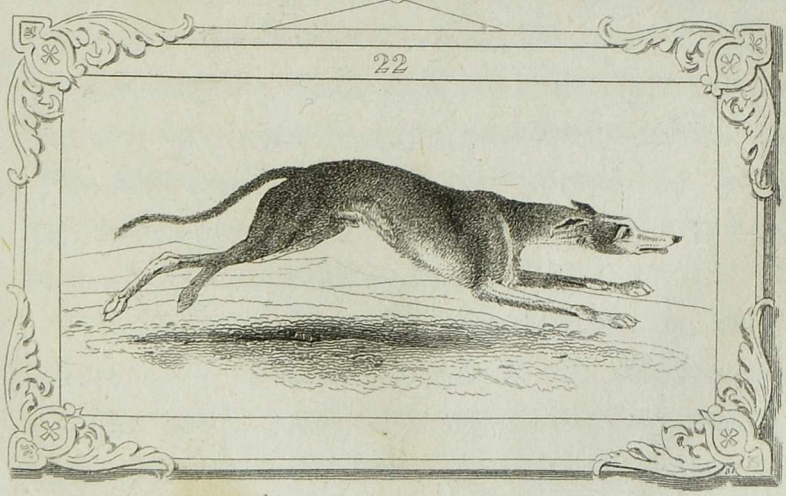
Having given this account of the general properties of the dog, I proceed to describe the peculiar qualities of those before us.

No. 19.—THE FOXHOUND.

This species was brought originally into our island from Spain and Barbary. They are considerably larger than the spaniel; strong and muscular, and finely formed. The head is large and long, the ears reaching down almost to the tip of the nose when the animal inclines his head to the ground; they are swift of foot, and their sense of smelling is most exquisite, particularly when the nose is moist. The colour is varied; the ground, or principal colour, is white, with large black and sandy spots.

Fox-hunting is a diversion very common in England; and the breed of the hounds is as much attended to by fox-hunters as that of their horses. The preparations for the commencement of this sport are peculiarly animating. The pack, consisting of thirty or forty dogs, all under the most





London Pub.d Dec.1.1825. by J. Harris, corner of St. Pauls.

perfect discipline, and each answering to his name; the loud and clear voice of the huntsman raised to its full pitch, directing and encouraging the hounds; the neighing of the horses; the uniformity and elegance of the hunting-dress, generally of scarlet; the number of gentlemen of rank and fortune, with their attendants, mounted on the finest horses, engaged in the chase: all combine to render this diversion most brilliant and exhilarating. Fox-hunting is peculiar to our country; and the chase is conducted with propriety and effect, such as no other country can boast.

There is very little difference between the foxhound and the *harrier*, except that the former is the larger and stronger of the two. They are alike in all other respects, in form, in colour, and in their manner of finding and pursuing the game by scent. As soon as the foxhound scents the game, he gives tongue, and, the whole pack immediately joining in the cry, the scene becomes peculiarly enlivening. The foxhound will sometimes pursue the hare: but this is always considered as a fault, and he is severely chastised for so doing.

There is a beautiful description, by Shakspeare, of a pack of hounds, in the *Midsummer-Night's Dream;* and, although it does not exactly agree with that of the particular species before us,

the beauty of the passage will excuse me for introducing it to your notice.

> My hounds are of the Spartan kind,
> So fleeced, so sanded; and their heads are hung
> With ears that sweep away the morning dew;
> Crook'd kneed, and dew-lapp'd like Thessalian bulls;
> Slow in pursuit, but match'd in mouth like bells,
> Each under each. A cry more tuneable
> Was never halloo'd to, nor cheer'd with horn
> In Crete, in Sparta, nor in Thessaly.

No. 20.—THE SPANIEL.

The next animal is the spaniel. Of all the canine race domesticated by man, the spaniel is the most docile and obedient; and, for elegance of form and beauty of colour, is not to be excelled. This species was probably originally imported into this island from Spain. The hair is long, and peculiarly fine and glossy, thick, and waving in curls; the head long, and beautifully formed; the eye peculiarly animated; and, when caressed, assuming a most interesting mildness of expression; the ears are long and fine, and covered with waving hair; the legs straight and well-formed; the body is compact, and fairly proportioned, forming altogether an elegant union of strength and beauty; the tail is long and bushy,

and carried with a graceful effect. The colours are various; but the most usual is white, relieved with large liver-coloured spots. The power of scenting in this species is remarkably acute. Such is the most affectionate, constant, and faithful attendant on man.

There are several different breeds of this species, distinguished principally by their size, and peculiar qualities in the chase. One of these is called the *setter*. This is the largest in size, and takes his name from the mode in which he pursues his game. He is used in the taking of partridges by the means of a net, which we call *netting*. As soon as he scents the game, he creeps up as close as possible, without disturbing the birds, which run on before him; at a convenient distance he lies down, and suffers the sportsman to draw the net over him and the birds together. He is so well disciplined, that he never attempts to seize upon the birds, but lies perfectly still till relieved from the net by his master; he then bounds and frisks about, as if proud of his success. The person who first broke the setter to the net was Robert Dudley, Duke of Northumberland, in the reign of Elizabeth.

Another breed of the spaniel kind is smaller than the setter, and was formerly used for hawking, a diversion now out of use with us. It was

the business of the spaniel to find the game for the hawk. This spaniel is also used in shooting. A very fine breed of them are preserved by the Marquis of Exeter, at his magnificent seat of Burghley, in Northamptonshire, where, I believe, the keepers are still accustomed to shoot with them. They used to go out with a dozen or more of these beautiful animals, who were so well disciplined to hunt in a compact body, that they never roamed beyond gun-shot reach: yet it required no inconsiderable degree of activity to keep up with them, and an unremitting attention to the springing of the game. They are principally of service in pheasant shooting, a species of game in which the extensive domains and beautiful woodlands of his Lordship chiefly abound.

No. 21.—THE TERRIER.

The third animal in this compartment is the terrier. This little dog takes his name from the nature of his employment, which is to force the fox or other animals from their places of concealment in the earth (*terra*, Latin). The terrier usually accompanies the pack in fox-hunting. He is also of service in rabbit-shooting, to rout the poor little timid creatures from their burrows which they make in the sand.

The terrier is a small dog; his body longer in proportion to his height than that of the hound; short-legged; and the fore-legs very commonly bandy, or bowed. Terriers are of different colours, white, red and black, but seldom spotted. The black and tanned is the breed most esteemed; the head and body are black; the muzzle and legs of a deep sandy colour, commonly called *tan colour;* the hair perfectly smooth and glossy; the head rather broad, but the nose sharp; the eyes round and projecting. It is much the fashion to cut the ears and tail of these animals. I must own, I could never discover a reason for this mutilation; and, indeed, as the occupation of the terrier is most frequently under ground, he experiences much inconvenience from the earth falling into his ears, which would be avoided were they suffered to remain in their natural state. Some of this species are rough-haired, particularly round the mouth, which gives something like the appearance of mustachios. The dogs of this sort are remarkably courageous, active, and sharp bitten. They will attack a dog of any size, and are very expert in drawing a badger from his strong hold. Resembling the bull-dog in fierceness and persevering courage, it is difficult to make them leave their hold. They are much attached to their master. The terrier, like the hound and the spaniel, scents his game.

No. 22.—THE GREYHOUND.

Dr. Caius, an English physician, who lived in the reign of Queen Elizabeth, and wrote upon natural history, informs us, that this beautiful animal takes its name from its rank and quality (Latin, *gradus*) amongst the canine species, being held the first in estimation. The forest laws of Canute contain a very singular clause, "that no one under the rank of a gentleman should be permitted to keep a greyhound:" which well accords with an old Welsh proverb, thus translated: "You may know a gentleman by his horse, his hawk, and his greyhound." There are several kinds of this species: first, the rough-haired greyhound, called, by M. De Buffon, the *grand Danois*, which was probably brought into this kingdom by the Danes. This animal, which pursues its game both by sight and scent, was much used formerly in Ireland in hunting the wolf; but the breed is now become very scarce in that part of the United Kingdom. It is commonly known among us by the name of the *lurcher*, and is seldom used, except by poachers.

The most beautiful, and by far the most esteemed breed of this kind, is the one usually distinguished by the name of the *greyhound*, and used in coursing the hare. This dog, which pur-

sues its game only by the eye, is peculiarly quick-sighted, and extremely swift of foot. It will out-run the strongest hare, which stands no chance of escape, except where the ground is intersected with hedges, or, from its unevenness, affords a facility to the animal of getting out of sight of its pursuer. This kind of diversion is called *coursing*, and is much practised in many parts of England, particularly in Yorkshire. The sportsmen, some on horseback and some on foot, arrange themselves in a line, and in this manner traverse the field in search of the game. The dogs are led in slips close in the rear, or on the flanks of the party. The instant any one spies the hare, he cries *Soho!* The dogs immediately prick up their ears at the well-known signal; the hare is roused from her form, and two dogs are let loose; they appear to pursue as if by a preconcerted plan, turning the poor affrighted little creature into each other's way, until, after a chase of a few minutes, the hare either becomes their prey, or they lose sight of her, and the course ceases. I have frequently been present at this diversion; and must own myself so bad a sportsman, as always to have wished for the escape of the hare.

The greyhound is remarkably light and elegant in his form, taller than either the spaniel or the foxhound; his legs are long and finely tapered;

his back straight; his chest deep; his loins and haunches firm and muscular; his neck rather long; his head long, erect, and finely tapered to the extremity of the nose; his ears small; his eyes oval and well set; his hair smooth and shining. The colour is various.

Gentlemen who are fond of coursing, take great pains in the breeding of these dogs, and are particularly attentive to their food. They are frequently led to the field in body clothes, after the manner of race-horses; matches are made between them, and large sums of money are betted upon a single course.

Froissart, a French historian, relates a story, which, if true, would lead us to believe that the greyhound is less faithful to his master than most other dogs. He says, when Richard II. king of England, had been compelled to relinquish the government to his rival, Henry Bolingbroke, the unfortunate monarch's favourite greyhound, on their coming out of the castle, neglected his old master, and fawned upon Bolingbroke.

This most useful and faithful companion and friend of man is subject to a disorder of a most dangerous and malignant kind, called *hydrophobia*, a name derived from two Greek words signifying *a dread of*, or repugnance to, *water;* and so great is this repugnance, that, although burning with

fever, and parched with thirst, no means whatever will induce or compel the poor tortured animal to swallow a drop of liquid of any kind. Dogs are seized with this disorder most commonly in summer, when the weather is very hot. I mention this circumstance, in order to point out to young persons the danger they run in caressing strange dogs. There are numerous instances on record of persons being seized with this horrible malady, from permitting a favourite dog to lick their hands.

The venom producing this disorder is contained in the saliva, or spittle, of the animal, and is communicated by becoming infused into the blood-vessels, through some part where the skin happens to be razed; and so deadly is the poison, that I believe there is no instance of any person affected with it having been cured. You even incur the hazard of getting this most dreadful malady from caressing those animals with which you live in the habit of daily familiarity: for the dog is subject to this disorder, and capable of communicating it, without any previous symptoms appearing to put you on your guard. I have been informed, by a physician of eminence, of this disorder having been also communicated by the bite of a cat.

I believe, attention to the food of the dog during

the hot season is a good means of preventing the disorder; to feed him sparingly, and with very little animal food, and to secure him at all times a ready supply of water. In the middle and southern parts of France, where the weather is much warmer than with us, it is usual to have a vessel of clear water placed before every door during the summer season; and an order is usually issued by the magistrates, when the weather is peculiarly hot, for destroying all dogs found at large in the streets. This is commonly done by means of poisoned sausages thrown in the streets. No one, therefore, who has any regard to the safety of his dog, suffers it to follow him at this time without being led in a string. There seems a degree of cruelty in this measure; but it is no more than a necessary precaution, especially in countries where the summer heat is much greater than in our more northern latitude.

My young friends will excuse me, if I once more solicit their attention to a subject which, from its very intimate connection with the comfort and happiness of this faithful domestic, and the influence it cannot but have on their own disposition and habits as they advance in years, and consequently into a more extended range of society, can never be esteemed impertinent or ill-timed. The subject naturally presents itself,

when we are considering the nature and qualifications of this most useful and faithful creature. Other animals, which a wise and benevolent Providence has permitted us to domesticate, and apply to our service their various powers and qualities, have each, as it were, their peculiar department; and, when their immediate service for the day is finished, retire to their respective places of repose: the horse to the stable, and the ox to his layer. But the dog is always on duty; his services never cease; he is the constant, undeviating attendant and humble companion of his master, without intermission, day and night: he is subject, therefore, to every caprice, to every change of temper, to which the fluctuating incidents of life may give rise. I have seen a poor little animal, who seemed, by his playfulness and alacrity, desirous of shewing his attachment, receive from his ill-humoured master, in return for his innocent caresses, a kick that laid him almost lifeless at his feet. I could have struck the inhuman monster to the earth. Should any of you, my young friends, ever feel yourselves urged by ill-humour or passion to give way to your temper, by ill-treating the poor little defenceless companion of your sports, pause a moment—reflect upon the cruelty and injustice of such conduct—before you strike the blow which

shall degrade you from the rank and character of humanity, and sink you in your own esteem. You will soon perceive the usefulness of this mode of conduct; for, as every repeated indulgence of vicious humour tends to harden the heart, and form a habit of cruelty and injustice, so every repeated restraint put upon our passions will correct the temper and amend the heart.

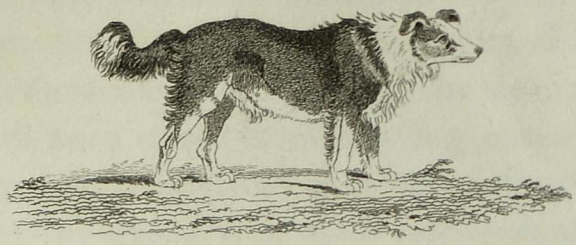
PLATE VIII.

THE SHEPHERD'S DOG, THE NEWFOUNDLAND DOG, AND THE CUR.

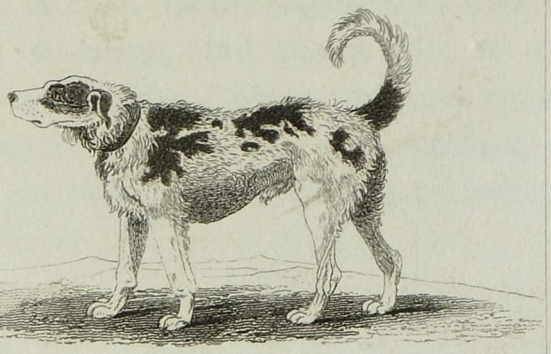
No. 23.—THE SHEPHERD'S DOG.

M. De Buffon observes, in his general account of the dog, that the shepherd's dog seems to have been the original of the species. This animal is found in countries where mankind have scarcely begun to be in a state of civilization. His exterior form and appearance is by no means prepossessing. He is not quite so tall as the greyhound, extremely rough in his coat, and has a sly and lurching manner; but his useful qualities, as a servant and faithful companion to man, are not to be exceeded by those of any of his

23



24



25

London Pub.d Dec.1. 1825. by J. Harris, corner of St. Pauls.

species. His general occupation is to assist the shepherd, and this he does most effectually. In large open fields, destitute of enclosures, I have seen this sagacious animal walk by the side of the flock, and keep them from straying out of the fallow ground, where they pick up their scanty fare, into the green corn that surrounds them. He helps also to fold them at night; and, in countries where that ravenous beast, the wolf, still exists, guards them during the hours of darkness from his attacks. In the daytime, he watches his master's slumbers, and alarms him on the approach of a stranger. He is satisfied with a little, and seems to regard his own comforts no farther than as they may contribute to those of his master.

No. 24.—THE NEWFOUNDLAND DOG.

The native country of this noble and faithful animal is designated by his name. His form is extremely fine; he is as large as the mastiff; his head and tail resemble those of the setter, except that the tail of the Newfoundland dog is longer and more bushy: he is of all colours. The water seems almost his natural element; he jumps into it on the slightest motion of the hand; will dive

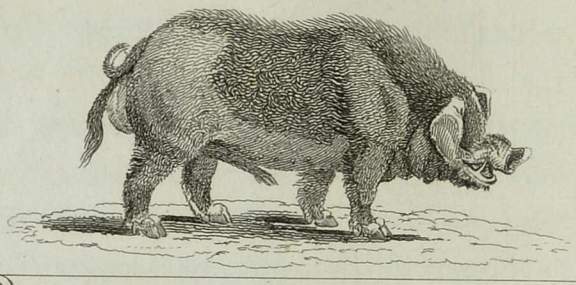
and bring up a stone from the bottom of a river, which he has seen thrown into it; and has been frequently known to save his master from a watery grave.

I remember reading a story relating to this generous animal, in which his faithfulness and courage deserved a better fate.—A gentleman had a Newfoundland dog, which was strongly attached to himself and his family. Entering his house one day, he beheld the cradle, in which his infant child had been left asleep, covered with blood, and much torn: the dog was lying by the cradle, smeared with blood. The idea that the dog had killed his child immediately rushed into his mind; and, without a moment's hesitation, he laid the animal dead at his feet! But what was his astonishment and grief, when, on examining the cradle, he found his infant fast asleep, uninjured, and a monstrous wolf dead by its side! The truth rushed instantly to his mind: he had killed his faithful servant, whose courage and fidelity had saved his child.

No. 25.—THE CUR.

This animal, which is of no particular species, draws his origin from a mixture of all sorts, and seems to be the least useful of any of his kind.

26



27

28

London Pub.d Dec.1.1825, by J. Harris, corner of S.t Pauls.

Mr. Pennant calls these dogs *dégénerés*, and mentions three kinds of them. The first, called the *Wappe*, a name derived from its note, was used only to alarm the family by barking, if any persons approached the house; the second, *Versator*, or *Turnspit*, was also of this denomination; and the third, *the Saltator, or dancing-dog*, which idle people lead about as a show, to amuse idle children.

PLATE IX.

THE SWINE, THE HARE, AND THE CIVET CAT.

No. 26.—THE SWINE.

You are so well acquainted with the form and habits of this animal, that a particular description is not necessary.

M. De Buffon observes, that the swine seems, in its outward appearance, totally different from any other animal. It is a slow, sluggish creature, and appears to delight only in eating and sleeping. When full, it will lie basking on a dunghill, and rouse itself only to eat again. The voice of the swine is peculiarly harsh and disso-

nant. When satisfied, he expresses his comfort by a grunt; but, when alarmed, his tones are extremely shrill and discordant. This animal, unpleasing in its form, and disgusting in its habits, is yet very useful to man; for there is no part of it that may be considered useless. Its flesh is excellent food; and, when salted, will preserve its goodness longer than that of any other animal. The hair of its neck and back is used by shoemakers in sewing. Pork-pies, black-puddings, and other good eatables are derived from this animal.

Some swine are very large; others, which originally came from China, are small: the flesh of the latter is remarkably delicious. They produce a great many young at a time, which are very playful, and, I think, very pretty; but, when grown up, they are proverbially sullen and stupid. Yet I remember, some years ago, one of these animals being exhibited as a curiosity; which, from its astonishing feats, was called *the learned pig.*

This animal, in its wild state, is extremely savage and ferocious. Hunting the wild boar is a favourite amusement in France and Germany. The wild boar is not so large as our very large hogs, and is of a dirty black colour. The flesh is esteemed as a great dainty by the Germans.

No. 27.—THE HARE.

This little, weak, and defenceless creature is endowed by Providence, in a very distinguished degree, by the preserving passion of fear, which makes it perpetually attentive to every alarm. To enable it to receive the most distant notice of danger, it is provided with very long ears, which, like the tubes used by deaf persons, convey to it the remotest sounds.

Its eyes are very large and prominent, and adapted to receive the rays of light on all sides. To assist its flight, the hinder legs are much longer than the fore legs, and furnished with strong muscles. This gives the animal great advantage in ascending steep places; and so sensible is it of this, that, when started, it always makes towards the rising ground. Its feet are ornamented with a thick warm covering of hair, to protect them from the damp and cold. The hare seldom leaves its seat during the day, but takes a circuit in the night in search of food, always returning through the same passes. The colour of this animal resembles that of the ground, which secures it more effectually from the sight of its enemies. In the northern countries, where the ground is almost constantly covered with snow, this creature changes its colour,

and becomes white during winter. It lives entirely on vegetables, and seems to possess neither the power nor the inclination to injure any living creature; though it does considerable harm in nursery-grounds, by gnawing the bark of young trees. It is particularly fond of parsley, pinks, and the bark of the birch-tree. The hare usually brings forth two young ones at a time, and increases very fast. The hair of this animal is much used in the manufacture of hats; for which purpose great quantities of their skins are imported from Russia and Siberia, where they abound.

No. 28.—THE CIVET CAT.

This animal resembles the fox in the shape of its head and nose, and is spotted like the tiger; but, in the form of its tail and legs, it resembles the cat; and its eyes shine in the dark. Between its hinder legs is a bag, which contains the perfume from which it derives its name. It is a native of the warmer climates, but will live in a temperate one, and even in colder countries, if carefully defended from the inclemency of the weather, and supplied with proper food. A considerable number of these animals were, at one period, kept in Holland for commercial purposes; and the perfume derived from them was much

valued. M. De Buffon gives the following account of the manner in which the perfume is taken from the animal :—

" The cat is placed in a small cage, where it has not room to turn itself. The cage is then opened at one end, and the animal compelled to change its position. A stick is placed across the bars of the cage, so as to incommode the hinder legs; and then, with a small instrument, the odoriferous substance is extracted from the bag in which it is contained. The inside of the bag is scraped with great care, and the contents placed in a vessel and carefully covered. This operation is repeated two or three times a week. The quantity of the perfume depends on the quality and quantity of food that it takes. Minced meat, eggs, rice, small animals, birds, young chickens, and sometimes fish, constitute the food which it prefers, and which provokes its appetite: very little water will suffice it, as it seldom drinks. The perfume of this animal, which resembles musk, diffuses itself over the whole body, and the skin is completely imbued with it. The odour is strongest when the animal is in a state of irritation."

The civet cat is naturally a savage animal, and somewhat ferocious; so that it must be approached with care. Its teeth are strong and sharp; but

its claws blunt and feeble. It is extremely active, and leaps upon its prey like the common cat. It lives by the chase of small animals and birds; and, like the fox, is apt to make depredations upon the poultry-yard. When other food is scarce, it will live upon grapes and fruits. It produces many young at a time. Its voice is not so strong as that of the cat, and its tongue is less rough. Its cry resembles that of an angry dog.

PLATE X.

THE WOLF, THE FOX, THE POLAR BEAR, THE GLUTTON, AND THE HYÆNA.

The next compartment which attracts our notice presents the above five animals. Those we have hitherto been describing are mostly domesticated by man, and subdued to his use. The animals now before us are of a nature widely different: wild, fierce, and untameable; enemies to man, and to every creature subjected to his service.

29

30

31

32

33

London Pub.d Dec. 1. 1825, by J. Harris, corner of St. Pauls.

No. 29.—THE WOLF.

Amongst the first of these stands the wolf. Gaunt, grim, fierce, and untameable, he submits to no discipline; and, although taken from his dam before he can see, the wolf never loses his characteristic fierceness; nor ever intermits, even in the earliest stage of youthful playfulness, those savage propensities which nature has implanted in his shaggy bosom. In his outward form, he resembles the dog, but in disposition is totally different. The dog is bold in his nature, and open in his attacks; the wolf, on the contrary, is cowardly and sly. A coward and a wolf are in France almost synonimous terms. The fiercest dog may be subdued by kindness and caresses; the wolf, insensible to both, retains his ferocious qualities and habits unmitigated.

He is about the size of the large shepherd's dog, and resembles that animal in his rough appearance and form. His head is large; his jaws are very long, and his ears small and pricked; his eyes, set on the sides of his head, are long in shape, fiery, and expressive of ferocity; his neck is long and thick, giving an idea of great strength; his body is firm; his limbs are large and muscular; his legs thick and bony; his feet broad; his toes long, and armed with long and very sharp

claws; his tail is long and bushy, somewhat resembling that of the fox; and his long and shaggy hair is of a dirty dark gray colour.

Mr. Pennant observes: "It has been a received opinion, that England was delivered from these ferocious animals by the care of King Edgar. This deliverance was chiefly accomplished by changing the punishment for certain crimes into the acceptance of a specified number of wolves' tongues; and, in Wales, by converting the tax of gold and silver into an annual tribute of three hundred wolves' heads. The good intentions of this monarch were not entirely successful: for we are informed, that, some centuries after his reign, the wolves had increased so much as to become the object of royal attention; and Edward the First issued his mandate for their destruction in several of the midland counties;" and Camden informs us, that certain lands at Wormhill, in Derbyshire, were held by this tenure, that the owners should be obliged to hunt and destroy the wolves with which that part of the country was infested: whence these lands were called *wolve-hunt*. At present—thanks to the zeal of our forefathers, and perhaps to an increased and extended population—our country is entirely free from these ravenous and destructive animals.

They are still, however, very common on the

continent of Europe. They infest, in large and numerous herds, the Pyrenée mountains, which separate France from Spain; and likewise the Alps, which divide that country from Italy; and the Apenines, which traverse Italy from north to south. In those wild and mountainous districts, these savage creatures roam with the most appalling ferocity, carrying destruction to the unwary traveller, who, in vain expected by his anxious relatives at home, is entombed in the bowels of this terrible beast. Not only does the benighted traveller become a prey to these monsters, but even the shepherd's hut, which is sometimes seen wreathing its blue smoke amidst the deep recesses of the mountains, affords no shelter to its affrighted inmates. When pinched by cold and famine, these creatures have been known to come down in great numbers, and, though naturally timid, to make a concerted attack upon the habitations of man.

I have been informed, that, in Burgundy and Franche-Compté, these animals exist in great numbers, and infest the neighbourhood of the numerous châteaus, which abound in those provinces. A French gentleman told me, that the wolves come down from the forests and conceal themselves in the plantations, watching an opportunity to commit their nocturnal depredations

upon sheep, cattle, and poultry; and he has frequently gone out, accompanied by several persons, to shoot them; an amusement attended with some danger.

A gentleman, who lived in the neighbourhood of Tours, within a mile of the town, had his larder frequently torn down by these animals. He assured me, that a friend of his, near Blois, a small town between Orléans and Tours, riding out with his two sons, young boys, was followed by three wolves up to the very gates of his château, from which they were only driven by fire-arms. The boys and their ponies seemed to be the objects they had in view; and they were kept at bay by the gentleman repeatedly turning round, and cracking a heavy hunting whip, his only weapon of defence.

These animals are sometimes so pressed by hunger, that they have been known to enter burial-grounds—which in France are generally at a little distance from the villages, and protected only by a low wall—and scratch up the dead bodies from the graves, to feed upon. It is usual, in France and Germany, to hunt these animals with large dogs; the followers of the chase being well armed with guns and pistols. This precaution is necessary, not only for the more certain destruction of the game, but to secure

themselves from the attacks of the infuriated animal, which, when hard pressed, turns upon its pursuers.

A gentleman in Franche-Compté succeeded so far in taming a young wolf, which he had taken from its dam, and brought up with goat's milk, that it would follow him in his rides: he was cautioned, however, to beware of it, and told that if, by any accident, he fell from his horse, the animal would seize on him immediately. He tried the experiment by throwing down his cloak, which the creature directly flew upon and tore to pieces.

No. 30.—THE FOX.

The next animal in this compartment is the fox. This creature is remarkably sly and cunning; so much so, that he has become proverbial. He is much less than the wolf, which he a little resembles in the form of his head and tail. His nose is much sharper than that of the wolf, and his head, though rather large for his size, is elegantly shaped. His eyes have a peculiar expression of sentiment, if I may be allowed the word; his ears are small, and extremely well set; his body and limbs are well proportioned, and expressive at the same time of lightness and strength;

his hair is short and thick, of a reddish colour, mixed on the back with black and gray; and his face and nose are tanned. He has whiskers resembling those of the cat; and his tail, long and bushy, adds much to his general beauty.

The fox is very destructive to poultry and young lambs, for which he has a great taste, and he has no objection to mutton, when lamb is not in season. He will however live upon roots, when nothing else is to be had; but hares, rabbits, and game of all kinds, are his usual food, and to which he gives the preference. The fox will eat mice; and, like the cat, he plays with them before he devours them.

In France and Italy, this animal causes much destruction in the vineyards: you remember the fable of "the Fox and the Grapes."

The usual habitation of the fox is in the woods; where he lies concealed during the day in a hole in the earth. At night, he comes forth prowling for his prey: and at sunrise betakes himself again to his place of concealment. He is the most cunning and sagacious of all animals; and has a very ingenious mode of ejecting his neighbour, the badger, from the comfortable habitation which this animal, with great labour and skill, has prepared for his own accommodation. The fox has an extremely offensive smell, of which

he seems to be aware: he therefore watches the badger from home, and then goes in and lays himself down in his place, which he so taints with his disagreeable odour, that the poor badger, which is a remarkably cleanly animal, will never enter it more. He now takes complete possession; enlarging the premises, and accommodating them to his own convenience.

This animal is well known throughout the continent of Europe, and the northern and temperate parts of Asia and America; but is very rarely to be found in Africa, or in countries lying in the neighbourhood of the equator.

The fox differs in size and colour, according to the temperature of the climate. Towards the north, he is found of all colours—black, gray, blue, red, and white. The gray and the blue are highly esteemed for their fur, which is very thick, and furnishes us with beautiful muffs and tippets. These furs form part of our trade with Russia; the black is reckoned the most valuable, on account of its scarcity and beauty.

The fox, originally a native of cold countries, endures the extreme cold of the arctic and antarctic climates. The furs brought from these parts are held in the highest estimation, on account of their peculiar length and thickness. All animals inhabiting these cold regions are suit-

ably provided for by the all-wise and beneficent Creator, who, in the beautiful language of a favourite author, "tempers the wind to the shorn lamb."

These animals live fourteen or fifteen years, and produce four or five young ones at a litter. Taken when very young, and brought up among dogs, they will lose much of their wild nature, and return your caresses; but it is rather hazardous to trust them: for, on the least offence, the wily animal will resume its natural ferocity, and bite its best friend.

The favourite diversion of fox-hunting, with gentlemen of rank and fortune, is of great use in improving the breed of horses in our country. The best of these noble animals are selected for this purpose; and much care is taken to procure such as unite the qualities of swiftness and strength.

It is a common practice to send persons, accustomed to the employment, very early in the morning to stop the holes where the fox frequents, before he returns from his nightly depredations; without this precaution, he must be forced out of his earth by terriers, which attend the pack for this purpose: he betakes himself to some neighbouring wood or copse, or he will sometimes lie concealed in large patches of gorse or furze; but

his haunts are generally well known to persons habituated to the chase. The hunters surround the cover; the huntsman and whippers-in enter with the hounds, which, quickly getting upon the scent, give tongue, and force the wily animal to break cover. The view *holloa* is immediately given, and away they go—dogs, horses, and men —over hedges and ditches, till the poor animal either reaches another place of refuge, or falls a prey to his pursuers.

However we detest all cruelty to the brute creation, this animal is so destructive to the property of the farmer, and has such an unfortunate taste for lamb and poultry, that his destruction is absolutely necessary for their safety and protection.

No. 31.—THE POLAND BEAR.

Observe the next animal. Take notice, how well Providence has protected him from the cold of his northerly climate by the long, rough, shaggy coat, with which his whole body and limbs are covered. His large long feet, armed with strong sharp claws, project from underneath the hairy vestment, as from beneath a pair of rough pantaloons. So long and thick is the hair on his shapeless legs, that they appear almost as

if they were without joints. He has no tail, or so short a one, that it gives a very grotesque and awkward appearance to his general outline. His head, however, is not ill-shaped; his ears are short and well set; his eyes round, but not characteristic of ferocity; his jaws long, resembling those of the boar. His colour is a dark brown; he is considerably larger than the largest mastiff; and his organs of smelling are remarkably acute.

There are several species of this animal, differing materially from each other, not only in size and colour, and the formation of their bodies, but also in their nature and habits.

The figure before us represents the Poland bear. The Polanders, speaking of the bears belonging to their country, mention two kinds—the black, and the brown or red bear; as also the large and the small bear. Of these the black bear is the most scarce; the brown is very common. The black bear is ferocious in his disposition, but never eats flesh; he lives upon fruits and roots, which he digs out of the ground. He is remarkably fond of milk and honey, according to the account given of him by M. De Buffon; but how he procures milk, I confess, I am at a loss to conceive. The honey he finds readily in the woods and rocks which he inhabits: and so fond is he of this food, that when he has seized it, no

power can force him to relinquish it. These animals have never been known to devour men.

One remarkably severe winter, they came down from the woods in great numbers, and were so pressed with hunger that they entered at night into court-yards, and even into houses which were not secured; but they never touched the domestic animals, nor the meat, which was open to their depredations, but devoured all the grain and vegetables they could find.

The brown bear, on the contrary, is a carnivorous animal, and extremely furious. When pressed by hunger, he will attack and devour men. It is observable, that this animal does not begin to devour his prey until he has deprived it of life, which he does by squeezing it to death between his fore legs; he then devours it with the most appalling ferocity, growling over it, and uttering the deepest and most terrific yells. This animal is naturally of a solitary disposition; and loves to inhabit the woods and rocks, where he conceals himself in caverns, and in the hollow trunks of the immense trees with which the extensive forests of the northern parts of Poland and Russia abound.

Hunting the bear is a favourite diversion with the Polish noblemen. The fur of these animals is very valuable; and a considerable quantity of

oil is also produced from their fat. A large bear-skin, ornamented with silver feet and claws, is frequently used as a hammer cloth, and has a very handsome appearance.

The flesh of these animals is much esteemed by the natives, and is said to have a delicate flavour; but the bear's paw is deemed a delicious morsel.

You have probably seen these animals dancing in the streets, to the sound of a tambourine, or small drum. The means used to teach them this exercise is cruel, and always takes away any amusement one might otherwise receive from this spectacle. The bear, I have been credibly informed, is placed upon a hot floor, with his hind feet secured from the heat by thick shoes. The animal naturally lifts his fore feet, which are uncovered, from the ground, and continues to move upon his hind feet only. Whilst he is thus taking his lesson, his master holds him by a string, or strong cord, beating at the same time a particular tune upon the tambourine. When, by means of practice, the bear has attained a proficiency in this accomplishment, he is carried round the country, and exhibited to all the astonished little boys and girls, before whom, as soon as he hears the well-known dismal measure, he immediately raises himself upon his hind feet, and moves round his master, who leads him by the

cord. The bear, on this occasion, is secured from indulging his savage nature by a muzzle; without this precaution, the exhibition would be attended with danger: for, however these creatures may appear to be tamed, they are never to be depended upon. Instances are on record of nature resuming its force, and the unwary spectators falling victims to their fatal curiosity. Independent of the means by which the bear is made to *dance*, as it is called, the fatigue which the upright attitude causes the animal, when long continued, is almost intolerable. I have seen the poor suffering creature roused to a repetition of the exercise, not without sentiments of pity for the persecuted defenceless animal, and of abhorrence towards his avaricious master.

This animal is sometimes baited by dogs. In this conflict, he carefully watches an opportunity to seize one of his enemies between his fore paws, whose destruction is then inevitable. Three English mastiffs are said to be a match for a bear. The experiment is said to have been made, by one of our kings, upon a bear confined in the royal menagerie at the Tower of London.

In destroying these animals, a man accustomed to the business will suffer himself to be embraced by the bear: but before the animal has time to give him the fatal squeeze, he thrusts a dagger

into his heart, and the bear drops immediately and dies.

In the *Jardin des Plants*, at Paris, is a remarkably large bear, of the species here presented to us. He is confined in a pit, surrounded by a light railing; and in the middle of the pit is a high pole, up which the bear sometimes climbs, to the amusement and terror of the spectators. The bear was at the top of the pole when a gentleman by accident dropped a franc into the pit: a soldier descended immediately, thinking to regain his place of safety before the bear could descend from his height; but the creature unfortunately saw him, and, getting down with almost incredible celerity, seized him in his tremendous gripe. It is needless to add, that the poor fellow became a victim to his fatal temerity.

No. 32.—THE GLUTTON.

This animal is called the *glutton* from its extreme voracity. Observe how its large distended belly hangs down almost to the ground. It is about the size of a very large badger; its legs are short; each foot, both before and behind, being terminated with five toes. Its neck and shoulders are ornamented with a mane. The hair on its

body is entirely black, but of a reddish brown on the sides.

The glutton is an inhabitant of the north only; it is never found even in regions within the temperate zone: it was on this account unknown to the ancients, who had not penetrated so far north. The habits of this animal are peculiarly unpleasant. So great is its voracity, that no manner of food is rejected by it; it will feed upon the most loathsome offal, and no stage of putridity is too offensive for its disgusting and insatiable appetite. One cannot help turning with a feeling of abhorrence from the contemplation of this disgusting creature. The very name by which it is distinguished strikes the mind with an idea of something extremely unpleasant; and the word *glutton* stands as the symbol of odium and merited reproach. Not that this creature, however disgusting its habits, is to be held up as an object of our hatred and antipathy—it seeks not us; it naturally shuns the abode of man, nor is it gifted with reason to restrain its odious propensities. No doubt, it has its use in the general system of animated nature, and is directed by instinct to accomplish the purpose of its being.

To speculate upon the uses for which the All-wise Creator has designed the various and multiplied creatures of His goodness and power, would

be trespassing far beyond the bounds of our limited faculties and circumscribed experience; but still we may sometimes be permitted to indulge our inquiries on this abstruse subject, and, without presuming to bound His infinite wisdom by the very narrow researches of our finite understanding, humbly endeavour to trace some of His ways; and, where the subject lies too deep for our scrutiny, to rest satisfied that infinite wisdom and almighty power have made nothing in vain. In the present instance, may we not conceive that the voracious unsatisfied appetite of this animal is intended to clear away some of those putrid substances, which would otherwise, by their accumulation, become detrimental to the health of the inhabitants of those countries whereof it is a native?

Let no presuming impious railer tax
Creative Wisdom, as if aught was form'd
In vain, or not for admirable ends.
Shall little haughty ignorance pronounce
His works unwise, of which the smallest part
Exceeds the narrow vision of her mind?
As if upon a full-proportioned dome,
On swelling columns heav'd, the pride of art,
A critic fly, whose feeble ray scarce spreads
An inch around, with blind presumption bold,
Should dare to tax the structure of the whole.

No. 33.—THE HYÆNA.

This ferocious creature resembles the wolf in its nature, and is also said to be untameable. By some naturalists it has been confounded with the glutton and some other animals; but M. De Buffon sufficiently proves it to be a separate and distinct species.

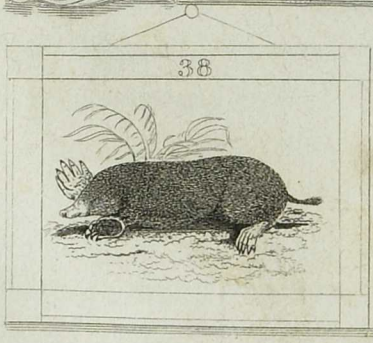
The glutton, as I have observed, is never found except in cold and northerly climates; the hyæna, on the contrary, inhabits the more southern countries, and was well known to the ancients. The characteristic marks of the hyæna are so distinct, that it is impossible to mistake them. It is the only quadruped with which we are acquainted that has no more than four toes on each foot, the same behind as before. Its ears are long, straight, and shaded; its head is thicker and shorter than that of the wolf; but its legs, especially the hinder, are longer. Its eyes are placed like those of the dog; the hair on its body, neck, and back, is of a dusky gray colour, mixed with black and yellow, varied with waving transverse lines of black. It resembles the wolf in height, but its body appears shorter and thicker.

The hyæna is a solitary animal, living in caverns amongst the rocks and mountains of wild uninhabited districts, and in caves, which it digs

for itself in the earth. It preys like the wolf, but is stronger and more fearless; it will sometimes attack men: it throws itself upon sheep and cattle; and in the night will break through the enclosures that are placed for the protection of the flock. The eyes of this savage animal are remarkably brilliant, particularly in the night, when it is said to have its vision more perfect than in the day. If we may credit the naturalists who have given accounts of the hyæna, its cry resembles the deep sighing of the human voice, and sometimes the lowing of a calf.

This ferocious beast will defend itself from the lion; it does not fear the panther; and will attack the ounce, which is unable to resist its strength and fierceness. When pressed by hunger, and unable to discover living prey, it will, like the wolf, tear up the earth with its feet, to get at the carcases of men and animals, which are in these countries generally buried in the open fields.

Some very extraordinary accounts are given of this animal, but, according to M. De Buffon, they deserve no credit; such as that it will imitate the human voice, and even call off the shepherds by name, and then fall upon the sheep; that its voice is so fascinating, as to arrest its prey at a distance, and fix it immediately to the spot. But these, and other accounts of a similar wonderful



London Pub.d Dec.1.1825, by J. Harris, corner of St Pauls.

nature, that esteemed naturalist treats as mere fiction, invented for the sole purpose of astonishing and amusing the reader.

PLATE XI.

THE PORCUPINE, THE BADGER, THE BEAVER, THE OTTER, THE MOLE, AND THE HEDGE-HOG.

No. 34.—THE PORCUPINE.

M. De Buffon observes, that this animal, from its name (*porc-epic*, French), might be thought to bear a resemblance to the hog; but it is totally dissimilar, both in its external and internal form.

The head of the porcupine is short, like that of the beaver. It has two large cutting teeth in the front of each jaw; the muzzle is slit, like that of the hare; the ears are round and flat, and the feet armed with claws. Some travellers have asserted that the porcupine has the faculty of darting its quills, when angry, to a considerable distance, and with force sufficient not only to inflict a deep wound, but even to pierce into hard wood;

and moreover that, after the quills have penetrated the flesh, they do, by a sort of instinctive force, pierce deeper into the wound they have made; but these accounts are now rejected as fables. When the animal is angry, it ruffles its quills; and some of them, having but slight hold of the skin, fall off; and on this circumstance, M. De Buffon assures us, entirely rests the opinion of the animal having the power of darting them from its body. Like other marvellous stories, this of the porcupine has increased every time it has been told, and will probably continue to do so, notwithstanding the absolute negation of this able and very credible naturalist.

The porcupine, originally a native of the warmer climates, will live and multiply in those of less warmth, as in Spain and Italy. It has been asserted by Pliny and other naturalists, after Aristotle, that the porcupine conceals itself during the winter, when it produces its young, after thirty days. These facts, however, M. De Buffon says, require to be verified.

When domesticated, the porcupine is neither savage nor ferocious; it is jealous of its liberty, and will, with its teeth, gnaw through the door of its cell. It lives entirely on vegetables and fruits; and its flesh, though insipid, is not bad food.

The quills of the porcupine resemble in substance the tubes of birds' feathers; and the animal has the power of raising and lowering them at pleasure, as the peacock does its tail.

No. 35.—THE BADGER.

THE badger was formerly distinguished by naturalists into two species, called the *swine-badger* and the *dog-badger*, from the resemblance their heads were respectively supposed to bear to those two animals.

This distinction is now laid aside by those who have made more accurate observations on this animal; and who agree that there is but one species of the badger, and that in its head and nose it resembles the dog rather than the swine.

This animal is about two feet and a half long, from the tip of its nose to the end of its tail: which last does not exceed six inches in length; it weighs from fifteen to sixteen pounds. The eyes are small and oval; the ears short and rounded; the head is long; the neck short and thick; the back round; and the whole form thick and inelegant. It is covered with long and very coarse hair, somewhat resembling the bristles on the back and neck of the hog, which adds much to the general clumsi-

ness of its shape and appearance. The nose and chin, the lower sides of the cheeks, and the middle of the forehead, are white. The eye and ear on each side are surrounded by a long black pyramidal mark, with the point reaching down to the nose. The hair on the body is of three colours—the bottom of a dirty white, the middle black, and the ends ash-coloured or gray. The hairs on the tail are very long, and of the same colour with those of the body. The throat and under-parts of the body are black, as are also the legs and feet. The legs are very short and thick, and remarkably strong for the size of the animal. Each foot is divided into five toes: those on the fore-feet are armed with long claws, well adapted for the life the animal leads, and its subterraneous habitation. The badger treads on the heel in walking, after the manner of the bear, which, owing to the shortness of its legs, brings its belly near the ground, and gives it a slow and awkward gait.

The hair and skin of this animal are very useful. When dressed with the hair on, the skin is used for covering holsters for pistols. The pouches worn by the Highlanders are also made of the same; and brushes for painting, particularly those of fine quality, are made of the hair of the badger. I have been told that the flesh of

this animal is not unpalatable; and that the legs, when dried, make excellent hams; but, never having tasted any, I cannot give an opinion on the subject.

This animal, although of great strength, and furnished by nature with teeth seemingly adapted for prey, is, nevertheless, perfectly inoffensive. It lives chiefly upon roots, wild fruits, grass, insects and frogs. It has been accused of destroying lambs and game: but this accusation is unsupported by sufficient evidence, and seems to be founded solely on the form of its teeth, which resemble those of carnivorous animals. The badger, as I have observed, is very slow in its pace; and, sluggish in all its movements, has but little chance of escape from its enemies. Nature, however, has supplied it with such means of defence, that very few creatures will dare to attack it: its bite is peculiarly sharp. When at bay, it fights with great courage and pertinacity; and few dogs are hardy enough to risk an encounter with an animal so well provided for defence. The terrier is commonly used on this occasion, and will sometimes succeed in drawing the animal from its earth.

Badger-baiting is no unusual sport among our countrymen of the lower classes. The dogs selected for this cruel amusement are of the terrier

kind, and peculiarly bold and sharp-bitten. The poor unoffending creature is placed under a tub, or a wheelbarrow turned upside down, well-secured on all sides, except one, where an opening is left for the purpose of admitting a contact between the belligerents. The badger faces this aperture, acting entirely on the defensive. Only one dog at a time is let loose to the attack, and he is frequently disabled by the animal, and retires from the combat crippled, and howling with pain. Another is then set at the animal, and so on: at length one is found sufficiently hardy and alert to seize the badger by the under jaw, and drag it from its fortress. Upon this a tremendous shout is raised by the surrounding spectators; and the owner of the successful dog is, like many others, hailed for a victory, which he had no hand in achieving.

This animal, naturally indolent, passes much of its time in sleep. It lives in holes which it digs in the earth with great industry. Its mansion consists of several apartments; and so cleanly is its nature, that it never commits any nuisance in its house, always going out for that purpose. —The fox, as I observed in my description of that animal, with a cunning peculiar to itself, frequently takes advantage of this cleanliness, to dispossess the poor badger of its home. It forms

a bed for its young of grass, which it carries in its mouth into its earth. It breeds once a year, and produces four or five young at a time.

The badger is a native of the north, and is never found south of the temperate zone. Mr. Bell mentions it as an animal well known in some parts of China, where its flesh is esteemed a delicacy.

No. 36.—THE BEAVER.

The third animal in this compartment is the beaver.

Of all the animals which have hitherto come under the observation of the naturalist, the beaver is the most singular in its habits; and, from its peculiar exertions to provide for its own comfort and convenience, deserves our greatest attention.

The beaver, as M. De Buffon justly observes, is, amongst quadrupeds, what the bee and the ant are amongst the insect tribe: it lives in society, and apparently under a certain system of government. Gentle in its manners, and living upon the bark and roots of trees, it is an enemy to none, and seeks not to injure or incommode any living creature.

In the art of building, the beaver excels all

that we have hitherto learned of man in an uncivilized state. The habitation of this animal is as much superior to the hut of the native American, as the palace of an European monarch to the cottage of the peasant: and that perfection of art, which men have gained only from long use, and the superadded knowledge and experience of many generations, this animal has received by instinct and intuition. The young beaver completes his first mansion with the same degree of skill and ingenuity that his father did before him. But in this very curious specimen of art there is no improvement; and this peculiarity distinguishes the instinct of animals from the reasoning faculties of man. Man brings his work to perfection by slow degrees, adding his own discoveries to the knowledge of those who have lived before him; but the animal is at once gifted with all the powers it is ever capable of receiving; and the beaver completes his first habitation precisely in the same manner, and with all the accommodations, of his last.

Differing from all other animals in his domestic attachments, the beaver chooses his mate for life. The young couple begin immediately to make arrangements for their future abode. With the use of their teeth alone, they contrive, by constant perseverance, to cut down

trees as thick as a man's body; and they manage their work so adroitly, that the tree may fall on the side most convenient to the place of their intended abode. Some of these trees are from eighteen to twenty-four feet in length; and the beavers, after having stripped them of their branches, carry them on their backs, or roll them, to the spot where they purpose to erect their building, which is always in the water. Here they place them upright, close to each other, in a circular form, with their tops exactly level with the water. They then fetch clay in their paws; and after laying it on the tops of the trees, beat it with their tails, till the whole mass becomes quite firm and level. This constitutes the floor of their mansion, which is always even with the edge of the water, but never overflowed by it. On this foundation they raise their edifice, which, rising about two feet and a half, terminates in a kind of dome, resembling an oven. The whole structure is composed entirely of green wood and clay.

It is difficult to conceive how these animals, not much bigger than badgers, can contrive to carry trees of such considerable bulk and weight. The fact, however, is indisputable, from the perfect accordance of persons of undoubted credi-

bility, who have witnessed what they have asserted concerning these very extraordinary creatures.

Several families live together, but each in its separate abode; thus forming a kind of society, or little hamlet, on the river or lake: a miniature of the magnificent city of Venice, which, rising from her foundations in the waters, exalts her turreted head above the waves, and seems to reign the queen of the tributary sea that encircles her walls.

The families thus associated, assist each other in their labour, and appear to be under the direction or superintendence of an elder. If any one is idle, and refuses to work, they unite their joint force to banish him from the society. With their mouths only, turning their heads backwards, they contrive to raise the tree sufficiently for them to get under it; and if those who labour on one side appear too weak to support the burden, others come immediately to their assistance.

These animals are extremely careful of their young: they produce two or three at a time, and live together in the most amicable manner, till the young are capable of providing for themselves, when the parents send them forth, to form each a separate family.

The beaver is fond of sitting in such a manner as to have his tail constantly in the water; and for this purpose the hut is built, as I observed, with the floor on a level with the water; but, at the same time, so secured, that the water cannot penetrate into it. In summer, when the water sinks on account of the heat, the animal has the foresight and skill to make dams to stop it from running off; and thus to keep it always on a level with the floor of the hut, that it may enjoy its habit of immersing its tail, without leaving its dwelling. All the inhabitants of the hamlet unite in making these dams, so necessary for their mutual comfort; and should any one refuse to add his labour to that of the community on these occasions, the rest surround him and beat him: a punishment he well deserves. These dams are constructed with so much skill and apparent forethought, that the water is never too high nor too low for their accommodation; and so wonderful is the work, compared with the apparent natural powers of the architect, that it is impossible for the contemplative mind not to see in it the hand of the great Master-builder of universal nature.

The Indians, in their canoes, are frequently stopped by these dams, and obliged to spend two or three days in demolishing the works, which

these animals will repair in one night. Those who have made these dams, will not permit others, who were not engaged in the toil, to live in the same hamlet, nor to share the advantages of their labour. They unite to repel the intruders, who are commonly found by the hunters leading a vagabond life, without the comforts of a home: after the manner of those sturdy beggars amongst us, who, preferring idleness to industry, ramble about the country subsisting upon the alms of their more industrious fellow-creatures.

M. De Buffon mentions the circumstance of a young beaver having been taken alive in Canada, and kept confined in a room. The poor captive shewed no signs of impatience, nor did it make any violent efforts to escape from its prison. It always appeared good-tempered, tranquil, and familiar; but had a mournful and dejected look. It seemed to be solely occupied with a desire of obtaining its liberty, ranging frequently round its prison, and appearing to examine the doors with much attention, but without any symptoms of violence or rashness, and with the sole view of finding some means of escape. It seemed quite indifferent to those about it, not seeking to injure, nor much desirous to please.

The beaver appears to be inferior to the dog in those relative qualities whereby this animal

would assimilate itself to man. The beaver seems to be formed for neither service nor command, and has no commerce with any species but its own. Individually, it has little personal industry, and not enough of cunning to avoid the most open snares. Far from attacking other animals, it is little capable of self-defence. It prefers flight to combat, although it bites very sharply, and with much rage, when it finds itself seized upon. Considered in its individual state, the beaver does not appear, as to its moral qualities, superior to other animals: it has not more spirit than the dog, more acuteness than the elephant, nor more cunning than the fox. It is remarkable rather for the peculiarities of its exterior formation, than for its interior qualities. It is the only quadruped, with which we are acquainted, whose tail is flat, oval, and covered with scales, and with which, as with a rudder, it directs its passage through the water. Its hinder feet are furnished with fins; but the toes of its fore feet are separated, and it employs them as hands to convey its food to its mouth. In its fore parts the beaver resembles a terrestrial animal; but the hinder parts have the appearance of an aquatic one. As the bat seems to connect the quadruped with the bird, so the beaver connects the quadruped with the fish. From this peculiar conformation, which

appears to us rather as a defect than a perfection, this animal has the skill to derive advantages that render it superior to most others.

These animals, like the bee and the ant, lay up a stock of provision against the winter. This consists of the bark and roots of trees, which form their sole nourishment, and whereof they collect sufficient to prevent the necessity of going abroad during the cold season, which, in the countries inhabited by them, is peculiarly severe; for the beaver is entirely a native of the North.

The manner in which beavers are taken, is generally by shooting them when they are just rising from the water, or by gins set for them about sunset, the time when they usually make their appearance. It is necessary to approach them with great caution. They are remarkably quick of hearing, and at the least noise plunge directly into the water; it is a long time before they rise again, and at a considerable distance from the place where they went down. Before they plunge into the water they beat it with their tails, making a noise which may be heard at a great distance, in order to give notice to their companions of the approaching danger. Their sense of smelling is also extremely acute: they will scent a canoe by the way it makes in the

water; and they immediately dive to conceal themselves, and then all pursuit is vain. Their eyes being very small, and placed on the sides of their head, they cannot see straight forwards, and will sometimes advance to meet their death. The instant they are dead they sink; they must, therefore, be taken up as soon as they have been wounded. The best mode of taking them is by gins, or traps, baited with the bark of the aspin-tree, of which they are very fond.

Another mode of taking these animals is the following:—when the water in which they build their huts is frozen over, and they think themselves safe from danger, the hunters pass over the ice, and cut down their habitations with axes. The beavers, thus forced from their strong-hold, flee to the edges of the lake or river, to hide themselves between the ice and the land; and there they lie flat on their bellies. The dogs, however, quickly discover them by the scent, and indicate their place of refuge to their masters, who break the ice with their axes; and, drawing out the poor animals by their tails, despatch them with a blow. It is very singular, that they do not seem to be disturbed with the noise made by breaking the ice, but quietly abide their fate.

The finest hats are manufactured from the fur

of the beaver; and the medicine called *castor-oil* is extracted from this animal.

No. 37.—THE OTTER.

The otter is also an animal of the amphibious kind; that is, it lives both in the water and on land. It preys principally on fish, which it is very expert in catching. It swims and dives with astonishing celerity; and always swims against the stream, with the view, probably, of meeting its prey.

The account given by naturalists of the peculiar sagacity which the otter discovers, in hunting and catching the salmon, is very remarkable. It is said that, on these occasions, two of these animals will act in concert, one stationing itself above, the other below the place where the fish lies; they then make their joint attack, chasing the salmon from one to the other, till the poor fish, wearied with their unceasing attacks, falls a prey to its persevering adversaries.

This animal discovers much sagacity in forming its habitation, which is always on the bank of a pond or river. It makes the entrance under the water, and works upwards, till it procures a dry and comfortable abode. In its progress

towards the surface, it forms several apartments, one above another, that, in case of floods, it may have a safe and dry retreat; for, although the otter spends much of its time in the water, it is very particular in choosing a dry place of residence. It makes a very small orifice for the admission of air, which it contrives to conceal, by making the outlet in the midst of a thick bush, or hedge.

The otter has usually four or five young at a litter, which have sometimes been found in cellars, sinks, and drains, near gentlemen's houses, the fish-ponds belonging to which this animal frequents. for the purpose of prey.

Otter-hunting is an amusement much followed, and affords considerable sport to the amateurs of the chase: harriers are generally used on this occasion. The only useful part of this animal is the skin, which is used to cover the holsters for pistols; and, if taken in the winter, is of considerable value. The most valuable furs of this animal are brought from the northern parts of Europe, and from Canada, where the otter is larger than in our country. The natives of North America make the skins of this animal into pouches, and ornament them very curiously with little pieces of bone. The finest otters are brought from the most northern parts of this last continent, where some have been found of a yellowish

white colour. The length of this animal, in our country, is about three feet three inches, including the tail, which is sixteen inches. The head and nose are broad and flat; the neck is short, and of equal thickness with the head; the body long; the tail flat and broad where it joins the body, but tapering towards the end; the eyes are small and round, and nearer to the nose than is usual in other quadrupeds; the ears are extremely short, and their orifices very narrow; the mouth is small; the lips, which are strong and flexible, are capable of much compression; the nose and corners of the mouth are furnished with long whiskers, which incline upwards, towards the sides of the face, somewhat like the mustachios of a modern dragoon; the legs are very short, but strong and muscular; the joints seem so loosely put together, that the animal can turn them quite back, and use them like the fins of a fish. The otter has five toes on each foot, which are united by strong broad webs, resembling those of a water-fowl: so wisely has Providence furnished this animal with the means of subsistence, in the way of life to which it is adapted.

The colour is a deep brown, with two small spots of white on each side of the nose, and another of the same colour under the chin.

The flesh of this animal has so much the fla-

vour of fish, that the members of the church of Rome are permitted to eat it on meagre-days.

No. 38.—THE MOLE.

Observe this little animal! It is impossible for a well-instructed mind to contemplate the wonderful works of the Almighty Creator, without being convinced that they display as much of wisdom and benevolence as they do of power! Whether we cast our eyes upwards towards the spacious firmament, or penetrate the recesses of the globe we inhabit—whether we survey the immense size of the elephant and the rhinoceros, or endeavour, with the finest glasses, to trace the lineaments of the smallest insect—when we observe how curiously and with what infinite contrivance, each object of our wonder and admiration is fitted for all the purposes of its safety and happiness—the mind is impressed with the most hallowed feelings of veneration and love to that great incomprehensible Being, "whose goodness is over all His works!"

There is, perhaps, no instance in which this impression is so strongly forced upon the mind, as in that of the little helpless animal before us. Without any means of defence, and apparently

destitute of the perceptions necessary to give it notice of the approach of danger,—for its eyes are so extremely small, as scarcely to admit a single ray of light; and ears, it has none;—unfurnished, like other animals, with a tail to equalize and direct its movements;—it seems impossible to us that this poor little, defenceless, and, to our view, unfinished creature, should ever escape the clutches of its voracious and quick-sighted enemy, the owl, and others which hunt it as their prey. But when we consider the mode of life allotted to this animal, and its subterraneous abode, all these apparent imperfections vanish; and, instead of a maimed and unfinished animal, the mole exhibits the most striking proof of fitness and contrivance in all its parts.

This animal is four or five inches in length; the nose slender, and the upper jaw considerably longer than the lower. The fore feet are broad, strong, and short; and, inclining sideways, have somewhat the form of hands; which are well adapted to scoop out the earth, to form its habitation, and to pursue its prey—such as worms, grubs, and other insects, whose dwelling is commonly within the ground. It is enabled, by the oblique position of its fore feet, to throw the loosened soil behind its back.

The form of the body is admirably contrived

for its habits and manner of life: the fore part is thick and muscular, affording strength to the fore feet. By this means the animal is enabled to dig its way with astonishing rapidity, either in pursuit of its food, or in eluding the search of its most active enemy. The hinder parts are small and taper, gliding with great facility through the loosened earth; which, by the exertion of the fore feet, had been thrown behind its back. The skin of this little animal is extremely compact; the hair very short and thick, and softer than the finest silk: the colour is commonly black. Mr. Edwards mentions some instances of their being spotted; and Mr. Pennant informs us of a cream-coloured breed, found on his lands, near Downing.

The ancients denied to the mole the sense of seeing: Virgil, in his first *Georgic*, speaks of the "sightless moles." But the smallness of the eye in this animal is a peculiar instance of the wisdom and care of Divine Providence. Destined to pass its life under ground, had its organs of vision been larger, they would have been subject to continual injuries from the loose earth falling into them. To prevent this inconvenience, which would have caused much pain and annoyance to the animal, the eyes are extremely small; and so covered with a fine and thick fur, that they are

scarcely discernible without the assistance of a microscope.

Anatomists, who have studiously examined the formation of the mole, inform us of another wonderful contrivance for its greater security. There is attached to each eye a peculiar muscle, which gives the animal the power of withdrawing or obtruding the eye, as its pleasure or convenience may require.

To compensate for the dimness of sight, by which this animal is secured against numerous inconveniences, and peculiarly fitted for its general habits, the mole is gifted with two other senses in the highest perfection: those of hearing and smelling. The first of these, on a superficial view of the animal, would seem to be impossible, from the want of ears; but, although there is no external appearance of the organs of hearing, and the orifice must be extremely small and fine, yet this sense is so acute, as to give notice of the most distant approach of danger; and its sense of smelling is so exquisite, as to direct it, although enveloped by the most dense darkness, to its prey. The nose, being very long and slender, is peculiarly fitted for the purpose of penetrating into the smallest holes, in the search of worms and other insects, on which it usually feeds.

You have seen small green circles on the grass,

which some country people call *fairy rings*: these are owing to the working of this little animal underneath, which, at particular seasons, burrows in this manner; and, by thus loosening the soil, gives a greater degree of fertility to the grass, and causes it to appear greener than the parts adjacent.

The mole breeds in the spring, and produces four or five young at a time: it forms its nest under the largest hillocks, called *mole-hills*, a little below the surface of the ground, and lines it carefully with moss.

This animal is observed to be most busy just before rain, and, in the winter, immediately before a thaw. This arises from the motions of the worms and grubs, which, at those times, usually approach the surface of the ground. When the weather is very dry, it penetrates deeper into the earth, and is not observed to form any hillocks; its prey at such seasons retiring farther into the ground.

In summer it runs, during the night, among the grass, in pursuit of snails and worms; and, by so doing, often becomes a prey to the owl. The art which this little creature discovers in preparing its food is extremely wonderful: it skins the worms before it feeds upon them, with

the most astonishing adroitness, stripping them from end to end, and squeezing out the whole contents of the body.

As the mole does considerable damage in fields and gardens, by loosening the roots of grass, and corn, and young plants, there is, in almost every parish, a person called *the mole-catcher*, appointed to destroy them.

No. 39.—THE HEDGE-HOG.

The last animal in this compartment is the hedge-hog. This little, mild, and helpless creature is guarded from the attacks of its numerous enemies, to which it would otherwise become an easy unresisting prey, by a covering remarkably strong, and fenced along the back and sides with sharp-pointed spines, or prickles, about an inch in length, and so firm as to resist the bite of any animal.

It has the power of rolling itself up into a ball, which it always does on the approach of an enemy; and, in this attitude of defence, scarcely any dog will venture to attack it.

Some dogs, however, which have been accustomed to it, have a very cunning manner of unrolling the hedge-hog; and then the poor little

thing, having no other means of self-preservation, falls an immediate prey to its ingenious adversary.

This animal is about ten inches in length, with a tail not exceeding one inch, but which is so concealed by the spines on its back as to be scarcely discernible. Its nose and mouth resemble those of the hog: the nostrils are narrow, and terminated on each side by a thin loose flap. The colour of the nose is black, and it is covered by a few thinly-scattered hairs. The upper part of the head and sides are clothed with strong hairs, resembling the bristles of a hog, and of an ash-colour. The legs are short and almost bare, and of a colour nearly approaching to black. On each foot it has five toes, long and separated: the inner toe is much shorter than the others. The claws are long, but weak; the spines which cover the back and sides have their lower parts white, the middle black, and the points white. The eyes are small, and placed high in the head; the ears, rather large for the size of the animal, are round and bare; the mouth is small, but well furnished with teeth.

The habits of this little animal resemble those of most of the creatures undomesticated by man; retiring during the day, and roaming about at night in search of food. The hedge-hog is generally found in small thickets, in hedges, or ditches

covered with bushes, well wrapped up in moss, grass, or leaves. It lives upon roots, fruit, worms, and insects. It has most undeservedly been misrepresented as sucking cows, and injuring their udders; but the smallness of its mouth at once demonstrates the fallacy of this accusation. It is a mild, helpless, and perfectly inoffensive animal, totally unable to injure any living creature, except the worms and insects which are given it for food. In houses infested with black beetles, the hedge-hog is found very useful in destroying them.

PLATE XII.

THE CAMEL, THE CAVY, THE SQUIRREL, AND THE DROMEDARY.

No. 40.—THE CAMEL.

The first animal represented in this division is the camel. M. De Buffon observes, that of all animals which man has subjected to his dominion, the camel is the most abject slave. With patience and submission scarcely credible, he traverses the burning sands of Africa and Arabia, carrying burdens of amazing weight.

The Arabs consider this animal as a gift from heaven—a sacred animal, without whose assistance

London Pub.d Dec 1 1825, by J. Harris, corner of St. Pauls.

they could neither subsist, traffic, nor trade. Its milk is their ordinary food; they eat its flesh; and its hair supplies them with materials for raiment. In the East, before the art of ship-building and navigation was sufficiently known, commerce was carried on between distant countries by long and laborious journeys, through vast sandy deserts, where water and other provision for man and beast were extremely scarce, and difficult to be procured. The beneficent Creator, foreseeing the necessities of mankind, had provided for their use a beast perfectly adapted to their wants.

The camel, by its patient and docile habits, by its long endurance of fatigue and privation of food, and also by the means which its peculiar structure affords of laying in a supply of water in a pouch under its throat, was well fitted for the performance of these long, tedious, and painful journeys.

In these expeditions, several merchants united and formed a company, for the purpose of travelling with the greater ease and safety. These companies, consisting of several thousand persons, are called caravans; and by these means the rich spices, silks, and other valuable commodities of the East are conveyed to far distant nations, among whom they are held in high estimation, and purchased at a great price.

In the possession of their camels, the Arabs

seem to be independent of every other want. In one day they can perform a journey of one hundred and fifty miles into the desert, which cuts off every approach of their enemies; here they can exist, in a country neither covered with verdure nor supplied with water.

The feet of the camel are formed of a tough and spongy substance, well suited to the intense heat of the climate, and not subject to crack, which, from the long and fatiguing journeys that it makes, would otherwise happen. The sand seems, indeed, their element, for as soon as they quit it and touch the mud, they with difficulty keep themselves upright. Their great power of abstinence enables them to pass unwatered tracts of country for seven or eight days together. They can discover water by their scent, at the distance of a mile and a half, and will hasten towards it, long before their drivers perceive where it lies. So great is their patience under hunger, that they will travel many days with only a few dates, or small balls of barley meal for their food, or with the few stunted thorny plants thinly scattered through the wild and inhospitable deserts.

A large camel will traverse these deserts with a load of a thousand or twelve hundred pounds' weight on his back. When about to receive his load, the animal, at the command of the con-

ductor, bends his knees. If overburdened, he gives repeated blows with his head to the person who overloads him, and sometimes utters the most lamentable cries.

The Arabs affirm that the camel is so acutely sensible of ill-treatment, that he will retain the remembrance of it till an opportunity offers of gratifying his revenge; but he retains his anger no longer than till he has satisfied this revenge. When an Arab has excited the rage of a camel, he throws down his garments in the path which the camel is to pass, and so disposes them, that they may appear to cover a man sleeping under them. The animal knows the clothes, seizes them with his teeth, shakes them violently, and tramples upon them in his rage. When his anger is thus appeased, he leaves them, and the owner may make his appearance without fear, and may load and guide the camel as he pleases.

This animal is much higher than the tallest horse. His shape is by no means agreeable to the eye. On his back are two large risings, or bunches; and his whole form is much inferior in beauty to that of the horse. He is known only in the warmer climates of the East, and in Africa; and is never found in more northern countries, nor even within the temperate zone.

No. 41.—THE CAVY.

This animal, a native of America, is found in Brazil, Guyana, St. Domingo, and generally throughout the southern parts of that vast continent, and in the West-Indian Islands.

In its form, the cavy bears a resemblance both to the rabbit and the rat. There are many varieties of the species, differing in colour and size: the largest is two feet in length, and the least about the size of a half-grown rabbit. The hinder legs are considerably longer than those in front, which gives it an awkward limping gait, like the rabbit. Its tail is extremely short, and in some of them scarcely at all apparent. It burrows in the ground near rivers and in marshy places, and lives on vegetables. It is a docile little animal, and easily tamed. Its flesh is much esteemed, and resembles that of the rabbit. It is also very cleanly, and produces one or two young at a time. The upper part of the body is covered with thinly scattered dark brown hairs; the sides are marked with five rows of white, gray, or yellowish spots, almost running into each other; the belly, breast, throat, and insides of the legs are of a dirty white; the upper jaw is considerably longer than the lower; the mouth is very small, and the upper lip divided, having on each side a fold of

skin resembling a mouth; the nostrils are wide, and the muzzle is ornamented with long whiskers; the ears are short, broad, and round, and covered with an almost imperceptible down; the eyes are very large and prominent; the eye-brows, temples, and throat, are garnished with a sort of hairy worts; the two cutting-teeth in each jaw are long and of great strength, and of a saffron colour; the tongue is narrow, and rather rough; each foot has five toes, armed with claws; the inner claw is very short.

I have observed, that there are many varieties of this species; some greatly resemble the guinea-pig, and grunt like it, and are extremely voracious. The river cavy, which inhabits the eastern side of South America, differs from those already described, as much, perhaps, as the water-rat differs from the rest of that species. It has no tail, or one so small as to be nearly imperceptible; it has only three toes on the hinder foot, which are connected by a web; it swims and dives remarkably well, and will continue a long time under water; it is very dexterous in catching fish in the night-time, and brings its prey to shore to eat, sitting upon its hinder feet, and conveying the food to its mouth with its fore paws, like the ape. This mode of eating is common to all these animals. The river cavies go together in

large herds; their voice is remarkably dissonant, resembling that of the ass; the toes have no claws, but are terminated by a sort of hoof. They live chiefly on vegetables, and are particularly fond of the sugar-cane. They do considerable damage in gardens and plantations.

No. 42.—THE SQUIRREL.

Observe this interesting little animal, half savage, half tame—the squirrel. It has such elegance and docility of manners, that one should think it almost impossible for any one to hurt it. It does not live upon flesh, and seems not to offer injury to any living creature. I have been told, that it will sometimes catch birds; but this is very doubtful, its ordinary food consisting of fruits, nuts, acorns, and dried corn. It is remarkably clean and spruce, very lively and active, and exceedingly industrious. Its eyes are sparkling and full of vivacity; its face is very pretty; its body very strong for its diminutive size; and all its limbs are well proportioned and elegantly disposed. Its general figure is much advantaged by its tail, which, like a feather, shadows its whole back, reaching quite up to the head. Its hair is rather long, shining, and of a reddish brown colour; the throat and

belly are white; the ears are small and well set. It seems to use its fore feet chiefly in conveying food to its mouth. It never hides itself in the ground, nor is it seen on plains or open fields, but seems always in the air, the highest boughs of the tallest trees constituting its favourite abode. It traverses vast forests, leaping from tree to tree. Here it makes its nest, collects grain, and drinks the dew-drops which are retained in the hollow chinks of its habitation. It has a peculiar aversion to water. I have been told, that when it is necessary for it to pass over water, it uses a piece of the bark of a tree for a boat, its tail serving both for sail and rudder; but never having seen it *en voyage*, I cannot vouch for the truth of this report.

The squirrel does not, like the dormouse, roll itself up during the winter, in a state of torpor, but is equally lively and agile all the year round. It provides itself in the summer with food, which it lays up in store for winter. The voice of this little animal is clear and strong. When angry, it will make a low murmuring noise, with its mouth closed. It is too active to walk; its ordinary gait is by leaps and bounds. Its nails are so sharp, that it will cling by them to the polished surface of the beech-tree without the slightest hazard of falling. These pretty little animals lie concealed

in their leafy dwellings during the noon-tide heat, from which they come forth in the evening to skip and play; and you may hear their shrill voice as they jump and frisk among the trees.

Their homes are exceedingly clean and warm, and impervious to the rain. They are usually placed in a fork formed by two or more branches, and are built of small sticks, and lined with moss. There is but one aperture to the nest, and this is at the top, very close and narrow, and guarded from the rain by a covering, in the form of a cone, attached to the next superior branch, so that the water runs off, and leaves the nest perfectly dry and warm. They produce three or four young at a time.

These animals change their hair at the end of winter. The fresh hair is redder, softer, and more beautiful than that which falls off. As if conscious of its beauty, the squirrel takes great pains to comb and dress itself. It is very clean, and has no unpleasant smell.

The hair of the tail is sometimes used as a brush to clean pictures; but the fur is not much esteemed.

There is a great variety of squirrels, some of an ash colour, some red; also a small gray squirrel. There is the flaxen squirrel of Camboje; the gray squirrel of Madagascar; the white squirrel of

Siam; the gray spotted squirrel of Bengal; the striped squirrel of Canada; the black and the large squirrel of Virginia; the white striped squirrel of New Spain; the white squirrel of Siberia; the small squirrel of America, Brazil, and Barbary: all which form several distinct species.

No. 43.—THE DROMEDARY.

This animal resembles the camel both in size and form, but has only one bunch, or tumour, on its back. It is found in the same countries as the camel, and is used by the Arabs and other natives of the East for the purpose of transporting their merchandize from one place to another. We read of this animal in very early times, as being used by merchants who traded between Egypt and the East. The habits and manners, as well as the form of this animal, are so like those of the camel, that it does not need a more particular description.

PLATE XIII.

THE FERRET, THE KANGAROO, THE OPOSSUM, AND THE POLECAT.

No. 44.—THE FERRET.

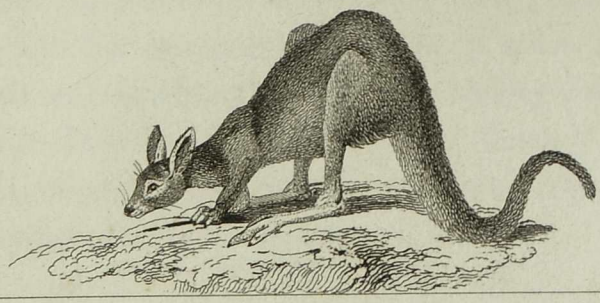
This little animal is a native of the South. According to M. De Buffon, it was brought over from Africa into Spain, where rabbits, of which it is the mortal enemy, were extremely abundant.

The ferret flies upon the rabbit with great fury, seizes it by the throat, and sucks its blood. It is remarkably sly, and its bite very sharp. With us, this animal is partly wild and partly tame, and is frequently used in hunting rabbits. On these occasions it is necessary to fasten a muzzle upon the ferret, otherwise it will catch the rabbits in their burrows, and, after sucking their blood, will go to sleep in the ground, and be with great difficulty extracted. When muzzled, it is sent into the burrows, and quickly succeeds in driving the poor rabbit from its place of seeming security, into the nets placed to catch it.

The ferret is also much used by rat-catchers, for it will seize upon the largest rats; the latter, however, frequently face about upon their pursuers, and a formidable combat ensues, which usually terminates in favour of the ferret.

44

45



46

47

London Pub.d Dec.1.1825, by J.Harris, corner of S.t Pauls.

This animal is about twelve or fourteen inches in length; the body is slender, and very flexible; the tail long and bushy; the head and neck are thick and strong; the nose is fine; the mouth small, and ornamented with whiskers; the eyes are red, full, and brilliant; the colour is a yellowish white; the feet are armed with sharp claws; the odour is peculiarly offensive, resembling that of the fox. It is remarkably sly and fierce; and, upon the slightest provocation, will even bite the person who takes care of it and feeds it.

No. 45.—THE KANGAROO.

According to the accounts given by naturalists of this animal, there appears to be two distinct species of them—one a native of New Holland, about the size of a small sheep; the other a native of the Cape of Good Hope, about the size of a hare. These species differ also in the number of their toes, the former having five on the fore feet and four on the hinder; and the latter four toes on the fore feet, and three only on the hinder. The toes of both species are armed with sharp crooked claws.

The head and shoulders are small in proportion to the other parts of the body, and the fore legs are

much shorter than the hinder. They advance by long leaps, or bounds; their fore legs, which they keep close to their chest, appearing to be of little service, except to dig up the earth, or to convey food to their mouth. The tail is much longer than the body, very thick at the commencement, and gradually diminishing to a point. The whole body is covered with hair, of a mouse colour, except the head and ears, which resemble those of the hare. When these animals fight with each other, they support themselves on the tail, and attack with all their four legs, scratching each other with great fury. Their usual food is grass, corn, or roots. When they eat, they place themselves in a sitting posture, extending their hinder legs horizontally, and conveying the food to their mouths with the fore feet. Their attitude, when sleeping, is singular; they sit with their knees extended, place the head between the hinder legs, and with their fore feet keep their ears close over their eyes, as if protecting their heads. They usually sleep in the day, and are very lively during the night.

I recollect seeing two kangaroos, which his late Majesty George III. presented to the Marquis of Exeter; they answered, in their exterior appearance, the description which I have given; but I had not the opportunity of closely observing their

habits. They died the first winter after their arrival at Burghly.

No. 46.—THE OPOSSUM.

This animal, a native of America, is a kind of wild cat; but it has some peculiar characteristics which distinguish it from all other animals. The female is provided with a kind of pouch under the belly, in which she conceals and nourishes her young; and both male and female have, on each of the hind feet, a toe separate from the other four, and without a nail, resembling the thumb on a man's hand.

Mr. Edward Tyson, an eminent physician and naturalist of our country, who took much care in the examination of this animal, gives the following description of it:—the head is full six inches in length, resembling in shape that of the fox; the nose and mouth, from the projection of the upper jaw, are like those of the hog, but much tapered: the body is thirteen inches, and the tail twelve in length; the fore legs are six inches, and the hinder legs four and a half; the body is fifteen or sixteen inches in circumference; the tail three inches in circumference nearest the body, and one inch at the other extremity; the width between the ears is about three inches, tapering to the nose; the

ears are round, and about an inch and a half long; the toes, without hair, and covered with a reddish skin, are about an inch in length; the palm of the feet is large and very hard; the tail is covered with hair to about two inches in length from the body, and the rest is covered with white smooth scales, of a hexagon form, placed with much regularity and separated, each scale being surrounded with a small fillet of brown skin; the ears, like the feet and tail, are without hair, and very thin and slender, like those of the mouse; the eyes are small, lively, and prominent; the neck is short; the breast large; the whiskers like those of the cat; the hair on the top of the head is whiter than that on the body, which is of a grayish ash colour, mixed with some small tufts of black and white along the back and sides; the belly is brown, and this colour deepens on the legs.

The opossum is a native of the southern parts of America. It is found not only in the Brazils, Guyana, and Mexico, but likewise in Florida, Virginia, and other temperate regions of that continent.

This animal, from the form of its legs, has an awkward gait, and is not difficult of capture. Like the squirrel, it is very nimble in jumping from tree to tree, where it conceals itself among the branches, and catches birds. It will twine its

tail, which is extremely muscular and flexible, round a branch, and, hanging with its head downward, remain a long time in this position without motion. It is a carnivorous animal, and fond of sucking the blood of its prey; it feeds also on reptiles and insects, the sugar-cane, a root called the patate (the same with our potatoe), leaves, and bark.

M. De Buffon says this animal may be domesticated. It is neither ferocious nor savage; but has an extremely offensive odour, worse than that of the fox. Notwithstanding its offensive smell, the flesh is not bad food; and the native Americans, who hunt it, prefer its flesh to that of any other animal.

No. 47.—THE POLECAT.

This animal is found in considerable numbers in all countries within the temperate zone, and also in the warmer climates of Madagascar, but not in more northern regions.

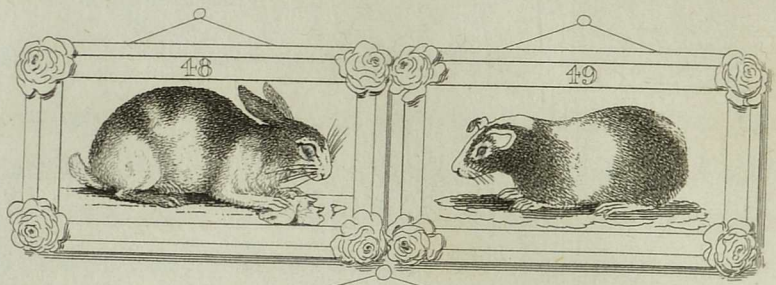
The polecat is about the size of the common cat; the head and tail resemble those of the fox; the shape of the body is something like that of the ferret. The general colour is dark, excepting the throat, which is white.

The countenance of this animal is very inte-

resting; the eyes are lively; its limbs supple; its gait is quick and active; its body flexible; and all its movements are rapid and alert. It leaps and bounds, rather than walks; climbs walls, enters dovecotes and poultry yards, where it makes great destruction, carrying off its prey to its young; eats mice, moles, and rats; and is very active and successful in surprising birds in their nests.

M. De Buffon gives an account of one which he brought up, and kept for eighteen months. It became so tame as to shew no hostility to those around it; but still retained so much of its savage nature, as to fly upon the poultry whenever it came within its reach; and was a constant enemy to cats. It was kept chained up; after some time it got loose, and absented itself for a short time, but returned and resumed its usual habits. It never seemed to attach itself to any one; fed like dogs and cats; but was very fond of honey, and would eat whatever was given to it, with the exception of salads and herbs, seeming to give a preference to hempseed. At length it went away, and returned no more.

The same author mentions having caught a polecat of full age, which he kept for a short time; but it never changed its savage nature, bit whoever came within its reach, and would eat nothing but raw flesh.



London Pub.d Dec.1 1825, by J. Harris, corner of St. Pauls.

These creatures, which usually inhabit extensive forests, produce three or four young at a time; and form their habitations under the roots of trees, in caverns, or under old walls, which they line with hay, grass, and moss. When disturbed, they remove their young, in their mouths, like the common cat. The one which M. De Buffon brought up, attained its full growth in one year; from which he concludes that this animal does not live more than eight or ten years.

The polecat will sometimes go without sleep for two or three days, after which it will continue to sleep during an equal length of time. When going to sleep, it rolls itself up into a ball, and envelopes its head with its tail.

PLATE XIV.

THE RABBIT, THE GUINEAPIG, THE CAMELEOPARD, THE CAT, AND THE RAT.

No. 48.—THE RABBIT.

The first object in this compartment, the rabbit, is an animal with which we are so well acquainted, that it needs no description. You will be surprized when I tell you, how rapidly these little animals increase. They breed seven

times in a year, and produce eight young ones at a time. From one pair of rabbits, one million two hundred and seventy-four thousand eight hundred and forty may be produced in four years. Were it not for the numerous creatures which make war upon these animals, the country would soon be eaten up by them. Scarcely a blade of corn would be left growing in the fields, nor any green herb on the ground. The hawk, the buzzard, the owl, and almost every carnivorous animal, makes a prey of the rabbit; and we know what numbers of them are brought to market every day for our own use.

It is mentioned by Pliny and Strabo, that the Balearic Islands were at one time so overrun by these animals, that the inhabitants actually applied to the Romans, in the reign of Augustus, for a military force for their extirpation. Strange as this may appear, instances of a similar nature are frequent in ancient history, in which, through the ignorance or inattention of transcribers, animals have been substituted for men bearing the same, or nearly similar names. In the case before us, the term *cunicularii* (miners, or pioneers) seems to have been mistaken for *cuniculi* (rabbits), and thus a feeble quadruped has been put in the place of a hardy and formidable race of warriors, who, from the neighbouring continent of Spain,

had invaded the Baleares. Always keep this in mind, when you are reading the marvellous accounts of ancient historians.

The native country of the rabbit is Spain. They abound most in temperate and warm climates. In cold countries, as in Sweden, they must be kept in houses. The fur of this animal is much used in the manufacture of hats. They are of all colours; but brown, sprinkled with gray, is the most common. In the Orkney Islands, where they are found in great numbers, they are of a gray colour, and in winter turn almost white.

No. 49.—THE GUINEAPIG.

This little animal comes originally from the warmer climates of Brazil and Guinea. It will exist and increase in a temperate climate, and even in countries more exposed to the cold.

The French bring up great numbers of them; but they are not worth the care necessary for their well doing, except merely for amusement. Their skin is of no value; and their flesh, though eatable, is by no means desirable. They live upon bread, fruit, and insects; and are of great service in clearing a house of the large black beetles that sometimes infest the underground apartments.

They increase very fast; the first time they

produce only four or five young; the second time six or seven; and at length ten or twelve at a time. From one pair of these animals you may raise one thousand young ones within the year.

The mother suckles her young fourteen or fifteen days, and then drives them away. If they continue to be troublesome, the father will hurt or even kill them. They die if exposed to cold or damp air. The cat is their great enemy; and, what is singular, contrary to the habits of every other animal with which we are acquainted, even the most timid, the guineapig will not attempt to defend its young when attacked by the cat, but suffer them to be eaten without making the slightest resistance. This, you will say, is an unamiable trait in this little animal.

The guineapig is about ten or twelve inches in length; thick made, with short legs. The colours are various, spotted with red, white, and black, much resembling the colours of the tortoise-shell cat.

No. 50.—THE CAMELEOPARD.

This animal, from its peculiar structure, has much engaged the attention of naturalists. It is found in the warmer climates of Asia and Africa. Although harmless and gentle in its habits, it has

not been rendered serviceable to man. Its extraordinary form renders its paces slow and unequal, and seems an obstacle to the full exercise of its powers. The skin is marked with large spots, of a deep yellow colour, upon a white ground. When upright, the height, from the fore foot to the top of the head, is about fifteen feet; from the foot to the upper part of the shoulder, nine feet eleven inches; and from the hinder foot to the crupper, eight feet two inches. This disproportion does not arise from inequality in the length of the legs, but from the extraordinary length of the shoulder and the protuberances of the back-bone. The shoulder-blade is two feet in length, and the protuberances of the back-bone one foot, making a difference of one foot nine inches between the fore and hinder quarters of the animal. The head of the cameleopard bears a resemblance to that of a sheep. It is about two feet long, and beautifully sprinkled with small spots, in colour like those on the body and neck. The upper lip protrudes about two inches beyond the lower; it has eight small cutting-teeth in the lower jaw; and, like other ruminating animals, none in the upper. The eyes are large, well formed, and bright, and their expression remarkably mild; the lips are garnished with eyelashes of long stiff hair. On the head are two horns,

inclining backwards. These horns are excrescences of the bones of the forehead, where they separate, and rise about seven inches. They are flat at the top like a button, and are covered with hair, which is longest at the top, where it forms a kind of pencil, or small brush. There is likewise a tubercle between the eyes, formed by a spongy excrescence of the bone, about four inches in diameter and two in height. The skin which covers this tubercle is callous and bare, owing, perhaps, to the animal rubbing it against the trees. The ears are eight or nine inches long; and between them and the horns are two large glandular protuberances. The neck is six feet in length; and always retains its upright position, whatever be the posture of the animal. The neck is ornamented with a mane, reaching from the head to the point of the shoulder, composed of alternate tufts of dark and light hair. The tail reaches a little below the middle of the legs, and is ornamented with a large tuft of long black hair. The negroes use this hair to fasten their bracelets. The feet are cloven, like those of the ox. These animals are seen in herds of ten or twelve together, and are easily taken. They live upon fruits and leaves, which their great height gives them a facility of obtaining. Their flesh is good; and their skin is used by the natives to keep water in.

No. 51.—THE CAT.

This animal, although by no means so agreeable and sensible as the dog, is yet a most useful and necessary domestic. She is much attached to home, though without shewing the least affection for any individual of the family. It is with difficulty that the cat becomes reconciled to a change of residence. She will rather starve, or pick up a precarious and very scanty livelihood, in the old mansion, than accompany the family in their new abode.

She is very active, clean, and neat in her person; when young, she is extremely entertaining, by her elegant and frolicksome demeanour; but, when come to years of discretion, her manners become very sedate.

She is very deceitful; and, whilst playing with her, you must be prepared for a scratch or a bite. Her business is to clear the house of rats and mice; a service which she usually performs with much adroitness and success. The night is the usual time when she hunts her prey. She is also very expert in catching birds; and you must be extremely careful never to hang a cage within her reach; for she will kill the bird in its cage, by striking it with her claws through the wires; and, if you leave the room only for an instant, be

careful always to shut the door of the cage, and place it out of her reach, otherwise your poor little prisoner will, some day or other, be inevitably destroyed.

The eyes of this animal shine in the dark, and are so formed, that she can vary the shape and size of the pupil at pleasure. Her hair, when rubbed hard, emits sparks of electric fluid, which, in the dark, are perfectly visible. She is proverbially tenacious of life; and, if she falls, always lights on her feet. She is fond of perfumes, particularly of the plant called valerian. And though extremely averse to water, is very fond of fish. If disturbed during the time that she is nursing her young, she will carry them away in her mouth, and hide them in some place of concealment.

This animal is found in almost all countries; and is too well known to need a particular description of its figure. When pleased, the cat will purr; and when angry she will hiss and spit, and strike with her fore foot.

The French have a peculiar breed, called the *Angola cat.* It is much handsomer than the common cat domesticated with us: the hair is very long and fine, and the tail bushy, somewhat resembling that of the fox.

The *wild cat* is much larger than the house cat,

and extremely ferocious. The head is larger, and the face flatter, than that of the tame cat. The teeth and claws are very long and sharp; and its strength is prodigious for its size. The tail is of a moderate length, but very thick, and marked with alternate bars of black and white. The general colour of this animal is a yellowish white, mixed with a deep gray. These colours, though seemingly blended, are, on close inspection, found to be in regular stripes, like the marks of the tiger. The wild cat is the most ferocious and destructive beast known in our island. It inhabits the mountainous and woody parts of the country; and is extremely destructive to young lambs, poultry, and game of all kinds. It is commonly taken by traps, or shot. Great care must be taken to avoid the teeth and claws of one that has been only wounded, as the strength and ferocity of this animal render it a very formidable adversary.

No. 52.—THE RAT.

There are several species of this animal. The one most common with us is about seven inches in length, with a tail of nearly eight inches. The nose is long, tapered, and ornamented with long whiskers. The colour of the head and back is a

deep iron-gray, almost black; the belly is of a dingy ash colour. The legs are dark coloured and bare; the fore feet want the thumb, or interior toe, having, in the place of it, only a claw; the hinder feet have five toes on each foot.

This creature is very destructive; for it eats every thing that comes in its way, meat, corn, paper, and clothes; it makes great havoc also among poultry, rabbits, and game. It commonly resides in houses, barns, and granaries. The waste and destruction occasioned by this animal in a stack of corn is astonishing. Barley is defended against its attacks by the horns, or long spines, with which the grain is furnished, and which prevents the rats from burrowing amongst it. The rat generally makes its nest near a chimney, and constructs it of wood, pieces of cloth, hay, and straw.

This animal increases very fast, producing six or seven young at a time. When pressed with hunger, they will eat each other; and have been known to attack very young children, when sleeping in a cradle. I remember an instance of a young child of Captain Oliver, at Wing, in the county of Rutland, being bitten by a rat as it lay asleep in the cradle. He is now an officer in the army, but still retains the mark of his earliest adversary.

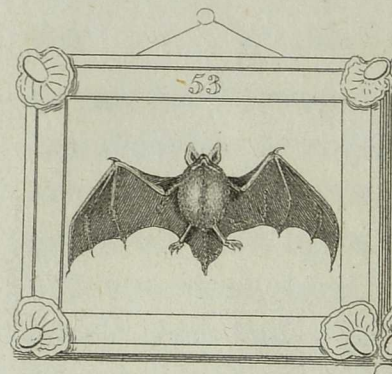
Besides the cat, the weazel is a deadly enemy to the rat; that animal, being extremely active and slender, pursues the rats through all their windings, and destroys many of them.

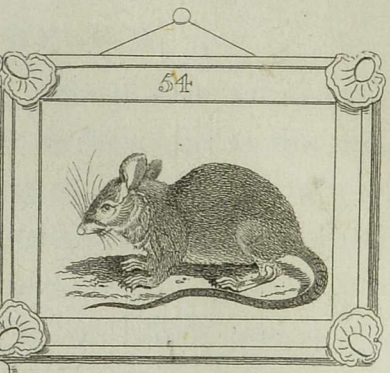
The office of rat-catcher is very common amongst us. The king's rat-catcher is distinguished by a dress of scarlet and yellow, embroidered with rats and wheat-ears.

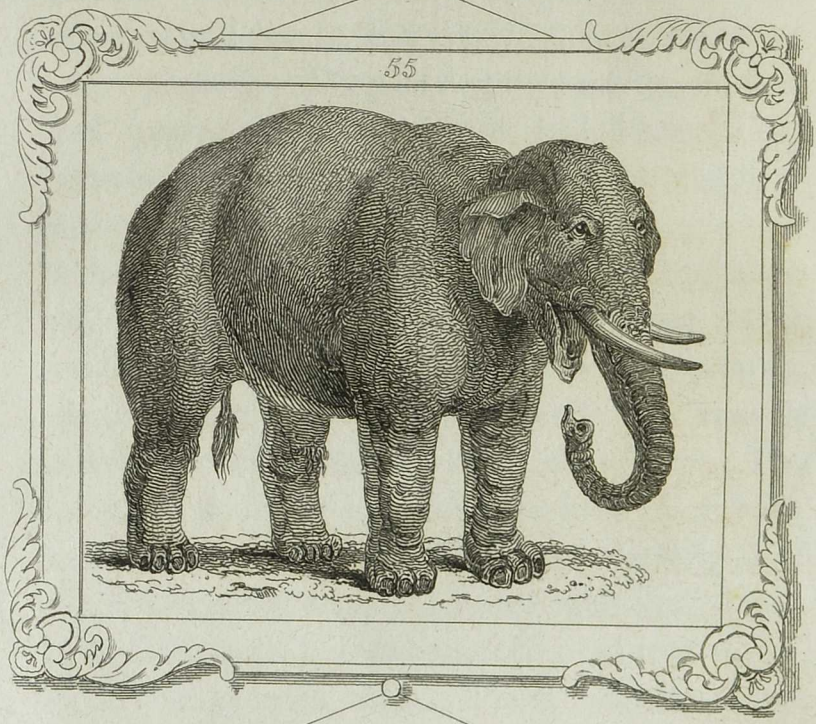
Another species of this animal, called the *Norway rat*, is considerably larger and stronger than the common one; it is nine inches long from the nose to the extremity of the body; the tail is of the same length; and the animal weighs about eleven ounces. The ears resemble those of the common rat; the eyes are large and black. The colour is a light brown, mixed with ash colour; the end of the nose, the throat, and the belly, are of a dirty white, inclining to gray; the legs are almost bare, and of a pale flesh colour. The beginning of the tail, nearest the body, is of the same colour as the back; the rest is covered with very small dusky scales, mixed with a few hairs. It is about seventy or eighty years since this animal was first brought into our country. Mr. Pennant, from whom I have derived most of my information concerning this animal, thinks it was introduced in the ships from the East Indies, where there is a species resembling this, which

we call the Norway rat, though it is unknown in Scandinavia. It is quite as ferocious as the common rat, which it has entirely extirpated wherever it has taken up its residence. These animals will sometimes turn upon their pursuers, and attack them with great spirit: their bite is extremely venomous. They burrow in the banks of rivers and ponds, and readily take to the water when pressed. They live upon poultry, rabbits, and game, as also on corn and fruit. They increase most abundantly, producing fourteen or eighteen young at a time.

A third species of this animal, called the *water rat*, is about seven inches from the nose to the tail, and the tail is five inches; the head is large, the ears and eyes are very small; the nose is blunt; and the teeth are long and yellow. The head and body are covered with long black hair, mixed with some of a reddish hue; the belly is of an iron-gray; the tail is covered with short black hair, but the tip is white. It produces six or eight young at a time. These animals never come into houses or barns; but frequent the banks of ponds and rivers, and live chiefly upon fish.







London Pub.d Dec.1 1825. by J. Harris, corner of St Pauls.

PLATE XV.

THE BAT, THE MOUSE, THE ELEPHANT, AND THE ICHNEUMON.

No. 53.—THE BAT.

This singular animal was ranked by Pliny and other naturalists amongst the birds, but erroneously; for, with the single exception of flying, it wants every other character of that order of animals. The bat is furnished with teeth, brings forth its young alive, and suckles them; properties which no bird possesses: the bat therefore is undoubtedly a quadruped.

The members which are called its *wings*, and with which this creature makes its way in the air, are merely the four interior toes of the fore feet produced to a considerable length, and connected together by a thin dark-coloured membrane, which extends itself to the hinder feet and the tail. The first toe is loose, and serves as a heel when the animal walks, or as a hook by which it adheres to the branches of trees or any other substance. The hinder feet are disengaged from this membrane, and divided into five toes, fur-

nished with pretty strong claws. The body is covered with a short fur, of a mouse colour, slightly tinged with red. The eyes are very small, and the ears resemble those of the mouse; indeed, with the exception of the membrane just spoken of, the whole appearance of this animal resembles that of the mouse.

The bat lives upon insects and grubs; it visits us early in the summer, when the insects on which it feeds are most abundant, and makes its appearance as soon as it begins to grow dusk. Before the morning dawns, it retires to its haunts, amongst old walls, hollow trees, or the roofs of uninhabited and decayed buildings.

The bat common in our country is about two inches and a half in length, and the extent of the fore legs, when stretched out, about eight or nine inches. But in countries between the tropics, these animals are much larger. I have been told of some bats, in the West-Indies, which measured fourteen inches from the tip of the nose to the other extremity of the body, and the fore feet, when extended, measured upwards of three feet from the tip of one to the tip of the other. The aspect of these animals is peculiarly unpleasing; and their bite is very sharp. Some have been found with long ears; but these are not so common as the others.

No. 54.—THE MOUSE.

This little animal is so well known, as scarcely to need description; but as there is a variety of this species, I will give some account of each distinctly.

The common house-mouse is quite a domestic animal, and never quits the house, although by no means a welcome inmate. It is excessively timid and cautious, and equally quick and active. M. De Buffon observes, that this animal is never found in countries uninhabited by man. It breeds very frequently, producing six or seven young at a time. It is sometimes found perfectly white, and is very pretty, its quick and full eye sparkling amidst the snowy whiteness of its fur.

Another animal of this kind, called the *field-mouse*, is about four inches and a half in length from the tip of the nose to the commencement of the tail; the tail is four inches. The eyes are black and full; the ears prominent; the head and back of a yellowish brown, mixed with some dusky hairs; the breast is yellow; the belly white; and the tail is covered with short hair. These animals are found only in fields and gardens, where they feed on nuts, acorns, and corn, and make sad havoc amongt newly-sown peas and beans. They lay up a store against winter; and

the mischief which the hog makes in rooting up the ground, is usually done in his search after the stores of this little provident animal. They make their nests near the surface of the ground, and frequently in a thick tuft of grass; and they produce from seven to ten young at a time.

Another kind is called the *harvest-mouse.* These little animals, the smallest quadruped in our country, are about two inches and a half in length, from the nose to the beginning of the tail, and the tail is two inches: the weight is about the sixth part of an ounce. These mice never come into houses, but are often carried in the sheaves, and stacked with the corn. Their nests, which they make above-ground, amongst the standing corn, are perfectly round, and composed of blades of corn.

A fourth kind is the *short-tailed mouse.* This measures about six inches from the tip of the nose to the beginning of the tail; and the tail is only one inch and a quarter in length. The head is large; the eyes are very prominent; and the ears are concealed in the fur. The back is of an iron colour, mixed with black; the belly of a deep ash colour; the tail is covered with short hairs, and terminates in a little tuft, about a quarter of an inch long. This animal makes its nest in meadows, and produces eight young at a

time: the legs, particularly the fore legs, are very short.

The *shrew* is another kind of mouse, not more than two inches and a half in length, and its tail one inch and a half. The nose is peculiarly long and slender, and the upper jaw much longer than the lower, and ornamented with very long whiskers; the ears are short and round; the eyes very small, and almost concealed in the fur. The colour of the head and back is a brownish red; the belly is white, but not very clear; the tail is covered with short dark hairs; the legs are very short, and the hinder legs are placed very far back; the feet are divided into five toes; the teeth are so close, as to appear almost like one bone.

This little animal inhabits old walls and holes in the earth. It is by no means a cleanly animal, for it lives amongst all kinds of filth: cats will kill, but not eat it. It produces four or five young at a time.

The last kind I shall notice is called the *blind mouse;* so named from the smallness of its eyes. It burrows in banks near the water; and, according to M. De Buffon, produces nine young at a time. The length, from the tip of the nose to the commencement of the tail, is three inches and three quarters; the tail two inches. The nose is

long and slender; the ears are small; and the eyes completely concealed in the fur. The colour of the head and back is black; the breast and belly are of an ash colour.

No. 55.—THE ELEPHANT.

This stupendous animal is a native of the warmer climates, where his amazing strength and sagacity render him an important auxiliary to man. Possessed of power superior to that of any other known quadruped, the elephant is guiltless of unprovoked violence, and wanders about the woods of Asia and Africa in a state of majestic mildness.

His colour is commonly of a deep ash-brown, nearly approaching to black; but in some parts of India, elephants are said to be found of a white colour. He is the largest of all terrestrial animals hitherto discovered, arriving at the height of twelve feet (M. De Buffon says fourteen), though the more general height seems to be from nine to ten feet. These vast animals roam together in large herds in the midst of woods, near rivers, in which they frequently bathe: for they can swim with great facility. The trunk of the elephant is a most curious piece of mechanism; flexible in

all directions, it performs the office of a hand and an arm. It is rather flattened on the under surface, and round on the upper: at the end of it the nostrils are placed. This member is at once the organ of respiration, and the instrument by which the animal conveys its food to its mouth. By this it drinks, filling the trunk with water, and emptying it into its mouth. This wonderful organ, which is composed of a great number of flexible rings, consists of a double tube, with a flattened circular tip, finished with a projecting point, or fleshy moveable hook, of extreme sensibility, and with which it can pick up the smallest object at pleasure.

This animal is also furnished with two immense tusks, of ivory, with which, in its wild state, it roots up trees, and then breaks off the branches with its trunk.

The elephant is possessed of a greater degree of intelligence than any other known animal; and, when domesticated, may be taught to perform many operations, requiring not only strength but skill. He is greatly attached to those who have the care of him, and extremely grateful for any kindness shewn him: he is also not unmindful of injuries, which he generally finds means to retaliate. The celebrated story of the tailor at Delhi, is a remarkable example of this:—

An elephant, passing along the streets of Delhi, put his trunk into a tailor's shop, where several persons were at work, and who would sometimes present him with fruit: on one occasion, however, one of them pricked the end of his trunk with his needle; on which the animal passed on, till, meeting with some dirty water, he filled his trunk with it; and, returning, squirted it upon the man who had offended him.

This animal has long been the pride of eastern princes and nobles. Porus made use of him in his wars against Alexander, when that prince invaded his dominions. A small tower was placed upon his back, in which were four armed men; and the driver sat upon his neck. The animal was urged furiously against the ranks of the enemy, trampling down whatever opposed him; while the armed men from the tower hurled their javelins upon their foes. Elephants are now used by the native princes and English residents of property, for purposes of state, and for performing journeys. They are extremely docile, and managed with the greatest ease.

The elephant lives entirely upon vegetables, and seems to offer injury to no living creature. The tiger is his greatest enemy; this furious and bloodthirsty beast will attack the elephant with the utmost fury, seizing him by the trunk, and

there hanging like a bull-dog, until the animal is exhausted by pain. It frequently happens that the elephant, aware of the attack, avoids the gripe of the tiger, and beats him to death with his trunk.

The manner of taking the elephant is usually by enticing him into pits prepared for him, or by cutting the trees nearly through against which he leans his enormous weight when he sleeps; for the elephant does not lie down to rest himself: the trees giving way when he attempts to repose against them, he falls prostrate on the ground, and is secured without much difficulty or danger. The elephant produces only one young at a time.

This animal, so docile and amiable in his disposition, is by no means pleasing to the sight. His skin, uncovered with hair, has a smooth and oily appearance; his eyes are small, in proportion to his huge head; his ears are large and ill-shapen; his vast legs seem like the trunks of trees; his tail is by no means ornamental; and his whole body constitutes one immense lump of living matter. Yet this large mass is animated with intelligence, approaching, perhaps, nearer to the reasoning faculty, than in any animal with which we are acquainted. But, though the elephant is not sanguinary in his disposition, I would

caution you against venturing too near one, lest you meet with an accident from his overwhelming weight. You recollect the one which you saw at the Exeter 'Change menagerie, and how familiarly it played with its keeper; that very familiarity, however, has since cost the keeper his life. He had been shewing the animal to some visitors on the morning of the 1st November * last; and, after calling their attention to instances of its extreme docility and playfulness, in which it caressed the man, and received his caresses in the most gentle manner, he commanded it to turn round. The elephant readily obeyed; but, in sharply turning the angle of his cage, its tusk came in contact with the man, and beat in his ribs and breast-bone; so that he died instantly. This melancholy accident was the effect of want of room in the cage, and inadvertency in the man, in not attending to that circumstance, when he ordered the animal to turn. As soon as the elephant saw what had happened, he stood still, and began to tremble exceedingly, as if conscious of the mischief he had done. Pray be cautious, and do not go into the cages of wild beasts when you see them, as many people are apt to do, at the risk of their lives.

* 1825.

No. 56.—THE ICHNEUMON.

This animal is found in the southern parts of Asia and Africa, and in Egypt; it is about the size of a cat, but resembles the rat in its form. Its body is covered with long stiff hair, of various colours, striped and spotted with white, black, and yellow. It is a great enemy to serpents and birds, and particularly to the crocodile, whose eggs it is very industrious in destroying. It is remarkably bold and daring, and will attack the young crocodiles without fear. It disregards the bite of serpents, and pursues them with the most persevering intrepidity.

The ichneumon, which is sometimes called *Pharaoh's rat*, is domesticated among the Egyptians; and so highly esteemed for its services in destroying the eggs of the crocodile, that they formerly rendered it religious worship. It is related of this animal, that, when bitten by a venomous serpent, it has the instinct to resort to a particular root, as an antidote to the poison. The Indians call this root by the name of the animal, by whose instinctive powers it was discovered.

PLATE XVI.

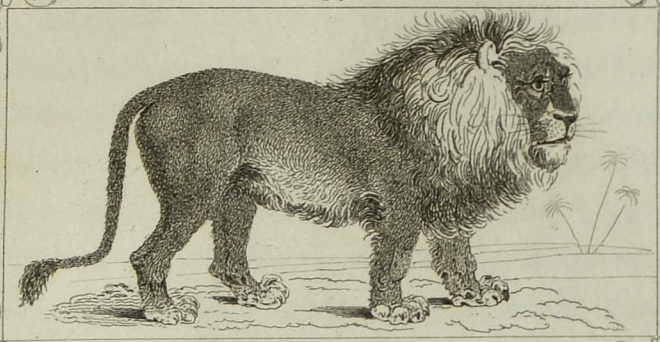
THE LION, THE TIGER, AND THE LEOPARD.

No. 57.—THE LION.

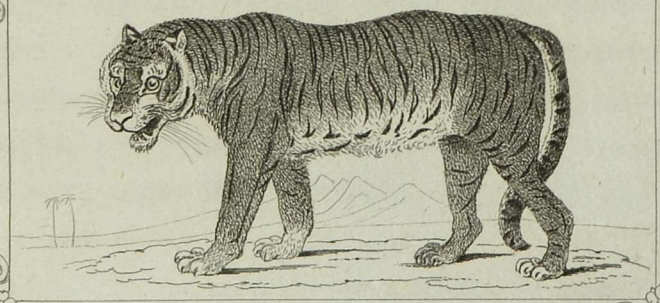
Of all terrestrial animals, the lion has ever been esteemed the strongest and the most generous; he is usually denominated the *king of beasts.* And, indeed, his proud imperial port and majestic mien, seem to entitle him to this distinguishing character.

The lion is a native of hot countries; and degenerates when brought into a cold, or even a temperate climate. M. De Buffon observes, in hot countries the terrestrial animals are larger and stronger than in colder or more temperate climates, and also more ferocious. All their natural qualities seem to depend on the heat of the climate. The lion, bred under the burning sun of Africa or the Indies, is the strongest, the proudest, and the most terrible of all animals. It is in these burning deserts, that those terrible lions are found, which are the dread of travellers, and the pest of the neighbouring provinces. The lions of America, if they may be thought deserving of the name, are far below those of the old

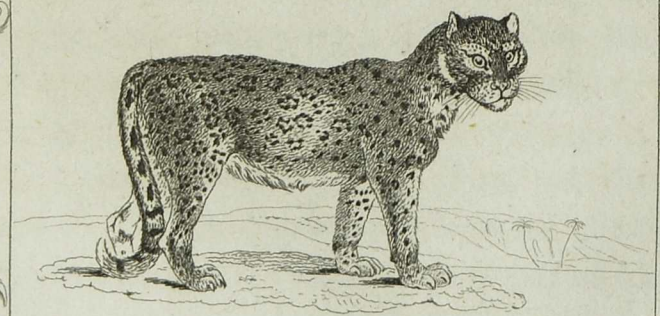
57



58



59



London Pub.d Dec.1.1825, by J. Harris, corner of St. Pauls.

continent, in size, strength, courage and ferocity. It has been said, that America is unfriendly to the growth and excellence of the animal creation. In the vast deserts between Senegal and Mauritania, as well as in the uninhabited parts of Southern Africa, lions are found in great numbers; and, not knowing man, they do not fear him; not having felt the force of his arms, they despise him. When surrounded, they have no fear; and a single lion will frequently attack a whole caravan. On the other hand, lions which dwell in the neighbourhood of towns fear his approach, and seem to lose their courage to such a degree, that, when spoken to in a menacing manner, says M. De Buffon, they will not dare to attack him.

The lion has an imposing figure, a firm look, a proud gait, and a terrible voice: his roar alarms every beast of the desert, and strikes terror into all who hear it. His body seems the model of strength and agility; furnished with little of flesh or fat, it appears all composed of nerve and muscles.

The astonishing muscular force of this tremendous animal, is perceptible in the prodigious leaps he takes; the violent movements of his tail, with which he can knock down a man; the ease with which he moves the skin of his face; and the

facility with which he erects his mane. A large full-grown lion is about nine feet in length, from the nose to the extremity of the body; the tail is about four feet in length, terminating in a large tuft of hair; and he is from four to five feet in height: his legs are extremely strong and muscular; his feet large, and armed with prodigious claws; and a profusion of long yellow hair ornaments his neck.

The lioness is about one-fourth less in size than the lion. She has no mane, and much resembles a very large mastiff dog. When angry, the lion erects his mane, lashes his sides vehemently with his tail, roars in a tone much shriller than his ordinary voice, stamps upon the ground, throws out his tongue, and exposes in a menacing manner his huge teeth and claws.

It would appear, from the accounts given by the ancients, that these animals were much more numerous in the time of the Romans than in the present day. Sylla had a hundred lions to fight in the arena at the same time; Pompey had six hundred, of which three hundred and fifty were males; and Cæsar had four hundred. This great supply of lions afforded opportunities of taming them; and their education was brought to an astonishing degree of perfection. Hanno the Carthaginian is said to have been the first

person who tamed a lion: and, for his pains, he was most unjustly condemned to death by his fellow-citizens, who asserted, that a man capable of subduing so ferocious an animal was likely to be dangerous to the republic. Marc Antony, the Roman triumvir, was publicly drawn in his chariot by lions.

The lion is as much distinguished for his generous and noble nature as for his strength and courage. He has not the sly insidious cunning of the tiger, but makes his attacks openly and boldly: nor does he ever attack except to satiate his hunger. He is said even to forgive, or rather disdains to notice, the insult of an inferior. He will attach himself to beasts of a different species, especially to the dog. Several instances have occurred of lions, brought over to our country, living on terms of familiarity with this animal. M. De Buffon believes the lion may live upwards of twenty years: but I have been credibly informed, that some of the lions in the Tower of London have been sixty or seventy years old. The colour of the lion is yellow, unmixed with any other colour.

A beautiful story of a lion is related in the *Guardian:* Androcles, the slave of the Roman proconsul in Africa, fleeing from the vengeance of his master, wandered, faint with hunger and

weariness, into a cave, in the deserts of Numidia. He had not been long in the place ere a tremendous lion entered. Androcles expected to be instantly torn to pieces; but conceive his surprise, when the animal, coming up to him, fawned upon him, and placed his fore foot upon his knee. Androcles, examining the foot, discovered that it had been pierced with a thorn; which he extracted. The lion shewed himself grateful for this service, and Androcles lived for some time on terms of familiarity and friendship with his *noble host*, who daily furnished him with food.

Tired, however, with this life of solitude, Androcles went home to his master, who, in the way of punishment, sent him to Rome to fight with the wild beasts in the arena. On the day fixed for the combat, a huge and hungry lion was let forth against the poor slave. The ferocious monster rushed furiously towards his victim, with the most tremendous roar; but on a sudden he stopped, and, approaching him with a slow and crawling pace, began to lick his hand, when Androcles recognized his former friend in the deserts of Numidia. The astonishment of the spectators was, as may be well imagined, very great. Androcles was pardoned; and, the lion being given into his possession, he repaid at Rome the protection and friendship which he had received in

Numidia. Dion Cassius, an eye-witness of this transaction, says, the two friends lived long together, the wonder and admiration of the Romans; who, as they walked together through the streets, were wont to exclaim: "This is the lion who was the man's host; this is the man who was the lion's physician."

No. 58.—THE TIGER.

This terrible animal, like the lion, is a native of the warm climates of Africa and the East Indies. The tiger is about seven feet in length, from the nose to the extremity of the body. He has no mane; and his legs appear too short for his length.

As his form is less beautiful than that of the lion, so likewise he is inferior to that noble animal in his natural disposition and character. The lion is ferocious, but not cruel; he destroys only to satisfy the wants of nature. The tiger, on the contrary, delights in blood; and he will leave the carcase of one animal to kill another; and will destroy a whole flock, or herd, and leave them dead in the field. His cruelty and ferocity can be exceeded only by his cunning. He is more to be feared than the lion: the lion will suffer men and animals to pass unmolested; the

tiger flies at all within his reach. He leaps on his prey after the manner of the cat, which he much resembles in his form and habits. His strength is prodigious. M. De Buffon mentions a trial of strength, made in France, between one of these animals and three elephants; in which the tiger, after a long and severe contest, succeeded in vanquishing his huge adversaries.

A gentleman, who, I believe, is now living, had a most providential deliverance from the jaws of one of these terrible beasts, in the East Indies. He was walking with three or four companions, when, suddenly, a tiger leaped upon him from a neighbouring jungle, and seized him in his paws. His companions fled, and he was left to struggle alone with the appalling monster; but he grappled his throat, and kept his hold till he succeeded in strangling him. Thus, by an extraordinary degree of courage and presence of mind, he saved his life; but he was sadly mutilated by the claws of the ferocious and enraged beast.

No. 59.—THE LEOPARD.

The leopard, a native of Africa, is somewhat taller and larger than a mastiff dog. Extremely savage, and incapable of being tamed, he leaps

upon his prey with extreme fury; and will attack both men and beasts of all kinds. He is, however, very beautiful in appearance: the colour of his skin is a deep yellow, sprinkled over with black or dark spots. His head is not too large in proportion to his size; the muzzle is small, and ornamented with long whiskers; his mouth large, and armed with tremendous teeth, which the women of Africa are accustomed to wear as necklaces. The eye of the leopard is extremely vivid, and in continual motion; his ears are short and round, and always upright; his look is most ferocious. His feet are large, with five toes on those in front, and four on the hinder, all armed with strong and sharp claws. He tears his prey with his teeth and claws, and feeds voraciously; yet he is always lean and haggard. His great enemy is the tiger, by whom many of his race are annually destroyed.

The natives catch the leopard, the tiger, and the lion, by digging deep pits, which they cover over lightly with reeds and earth, and lay upon them the carcases of some animals as baits. This lure brings them to the spot; and as soon as they tread upon the covering, it gives way, and they are precipitated into the pit, where they are afterwards killed.

It is a mark of the kindness of the all-wise

Creator, that these savage and tremendous inhabitants of the forest roam, in search of prey, chiefly during the night—that period of repose when man is secured from their attacks. When the sun rises, and "man goeth forth to his labour," they betake themselves to their dens, till the darkness recalls them to their wanderings.

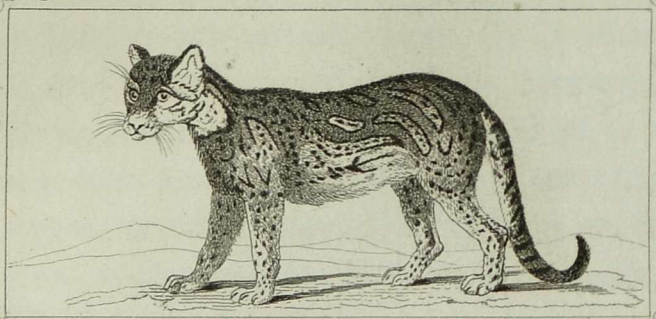
PLATE XVII.

THE OCELOT, THE OUNCE, AND THE SERVAL.

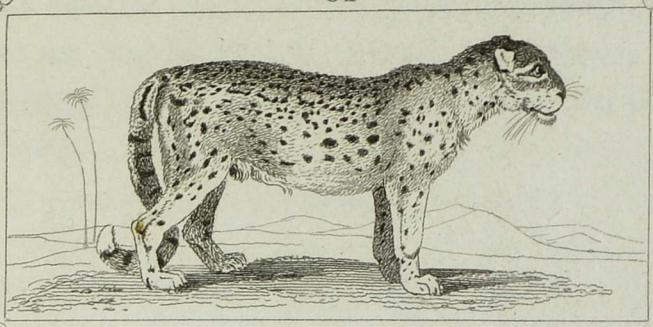
No. 60.—THE OCELOT.

The ocelot is a native of America, and in figure resembles the tiger. It is extremely ferocious, and delights in blood. Of all animals which resemble the tiger, the male ocelot is the most beautiful; being elegantly variegated in its spots, and excelling the leopard in the brightness of its colours, and the regularity of its marks. The colours of the female are less vivid than those of the male, and the figures on the skin less varied. The ocelot, according to the authorities quoted by Buffon, is about two feet and a half in length; and the tail, though it does not reach the ground, is sufficiently long in proportion to the body.

60



61



62

London Pub.d Dec. 1. 1825, by J. Harris, corner of St. Pauls.

This animal, though extremely voracious, is timid, and rarely attacks men. It is afraid of dogs; and when pursued by them, betakes itself to the woods, and climbs to the top of a tree. Here it lives and sleeps; and here it stays to look after game or cattle, upon which it throws itself, as soon as it perceives them within reach. It prefers the blood to the flesh, and therefore kills more than it devours. This animal, in a state of captivity, preserves its natural habits: no abatement can be made of its ferocity; nothing can calm its inquietude; it must be constantly kept in a cage. The female produces only two young at a time.

No. 61.—THE OUNCE.

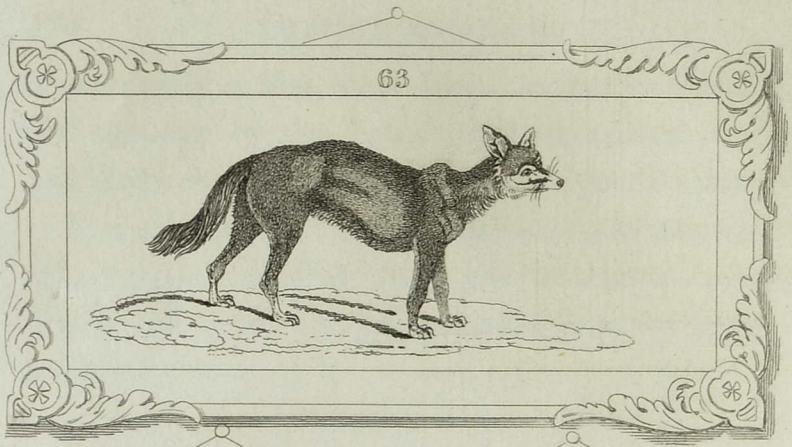
The ounce is another beautiful animal, spotted like the leopard, but inferior in size. It is also a native of the warmer climates. The ounce is much less ferocious than the leopard, and capable of being tamed; so that the natives are said to make use of him in hunting: for in hot countries the dog is unknown as a native, and such as have been introduced from Europe generally lose all their serviceable qualities, and die. The ounce has not the faculty of scenting its game, like the dog, but pursues only by sight; it

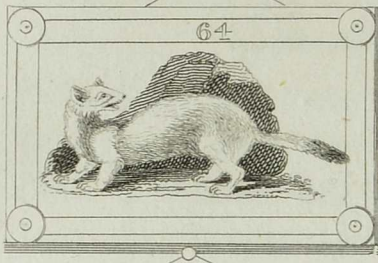
is extremely active, and leaps upon the game in the manner of the tiger. It will ascend trees, and from thence precipitate itself upon its prey.

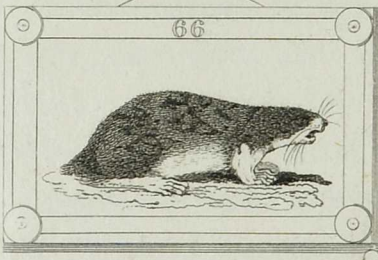
It is said that, in Persia, there is an animal of this species, smaller than the common ounce, which the hunter carries behind him on horseback.

No. 62.—THE SERVAL.

This animal, extremely savage and ferocious, is in size between the wild and the civet cat. The head is rounder and larger, in proportion to its bulk, than that of the wild cat, and the forehead appears dented in the middle. The colour of its skin resembles that of the panther; the head, back, and sides, are yellow, ornamented with black and white spots, regularly and elegantly arranged: beneath the belly and throat, the colour is white. The eyes are extremely brilliant; the whiskers are formed of long stiff hair. The tail is short, though not too much so in proportion to the body: the feet are large, and armed with long crooked claws. The serval is found in the mountains of India. It is seldom seen in the plains, and generally keeps its station in trees, where it forms its nest, and catches birds, on which it subsists.







London Pub.d Dec.1 1825. by J. Harris. corner of St. Pauls.

It leaps from tree to tree with wonderful agility. Notwithstanding its natural ferocity, it flees from the presence of man, except when irritated, or disturbed in its nest, or lair; when it will fly upon him with the greatest ferocity, and attack him with its teeth and claws, in the manner of the panther.

PLATE XVIII.

THE JACKAL, THE ERMINE, THE SABLE, THE MARMOTTE, THE JERBOA, THE RACKOON.

No. 63.—THE JACKAL.

This animal is commonly found in Africa, Arabia, and all countries inhabited by the lion, the panther, and the ounce. Like them, it lives upon prey, and is said to act as a purveyor to the lion; but this notion is probably derived from its following the track of that animal for the purpose of feeding upon what he leaves: for, being inferior in strength to the wild beasts which inhabit the same countries, the jackal has more difficulty in procuring food. The lion, therefore, may rather be considered as purveyor to the jackal, than the jackal to the lion.

The jackal is about the size of the fox, but much stronger, and more ferocious. He so much resembles the lynx, that some naturalists have considered them as of the same species; but M. De Buffon has refuted this opinion. This animal has been seen to attack and instantly kill a dog of the largest size, which, fighting for its life, would naturally exert its full strength.

Although the jackal is tamed with much difficulty, yet, when taken very young, and brought up with care, it may be trained to the chase, of which it is naturally fond, and for which it is peculiarly adapted by the acuteness of its smell and sight. It is used in India to hunt hares, rabbits, and large birds, which it surprises and seizes with much address.

No. 64.—THE ERMINE.

This very beautiful little animal, in form much resembling the weasel, is unknown in the warmer or even more temperate climates; but is chiefly found in the northern parts of Russia, Norway, and Lapland. Its fur, during the long winters of those parts, is of the purest white; except on the tail and feet, where it is black: it has also a black rim round the eyes; which latter are extremely

quick and lively. In the summer, its fur assumes a brownish cast. It feeds upon small squirrels, and a kind of rat which is common in those countries.

M. De Buffon mentions his having kept an ermine for a whole year; but it never laid aside its wild nature, and spoiled its fur by continually rubbing itself against the wires of its cage. It fed upon eggs and meat, but always waited till they began to grow putrid. It would not eat honey, till, having been kept without food for two or three days, it partook of some, and died quickly afterwards.

The fur of this animal is held in very high estimation; the robes of our kings and nobles are lined with it. When new, it is of the purest white; but grows yellow by being kept.

No. 65.—THE SABLE.

This animal resembles the martin in the form of its body, and the weazel in its teeth. It has six cutting-teeth, long and a little curved, together with two canine teeth in the lower jaw; and three others, small but very sharp, in the upper: its mouth is furnished with large whiskers; its feet are large, and armed with five claws. Dr.

Gmelin speaks of having seen two of these animals alive in the governor's house at Tobolsk. The colour of one of them was brown, nearly approaching to black; the ears and the part beneath the chin were more inclining to yellow. The colour of the other was a yellowish brown, growing paler under the chin and upon the ears: this was rather inferior in size to the former. These were the winter colours; in the spring and summer they became paler. These little animals possess wonderful agility; they raise themselves on their hinder legs when preparing for combat; and are very unquiet, rambling about all night: in the day-time they take repose. After eating, they always sleep for half an hour or an hour; in this state, they may be shaken, or even slightly wounded, without being awakened. They frequent the borders of rivers and the drains of houses; and are also found in woods and shady places, where they screen themselves from the sun, which is said to change their colour. The winter is the time for hunting sables, for then their fur is most valuable: the value varying according to the degree of blackness. Their food is rats, fish, roots, and wild vegetables. They are found in Siberia and the vast forests of Great Russia, and their furs form an article of commerce in our trade with Russia.

No. 66.—THE MARMOTTE.

This animal is about the size of the hare, which it also resembles in the form of its nose, lips, and head. The skin and claws are like those of the badger; the teeth are similar to those of the beaver, as the whiskers are to those of the rat, the eyes to those of the dormouse, and the feet to those of the bear. The tail and ears are short; the hair on the back is of a reddish brown colour, and very rough; but that on the belly is more red, soft, and tufted. Its voice, when pleased and caressed, resembles the whining of a little dog; but when angry, its tones are very loud and shrill. It lives chiefly on the tops of mountains, amongst ice and snow, and makes its habitation in the earth, in the form of the letter Y, large enough to contain three or four of its species. In the beginning of October, when the cold weather commences, the marmotte becomes torpid, like the dormouse, and in this state lies concealed in its dwelling till the warm weather returns. It is remarkably cleanly in its habits, and lives upon roots, leaves, and various kinds of herbs; which it is very industrious in providing and laying up in store. Travellers have asserted, that in this occupation one of these animals lays itself upon its back; and its companions, after they have

piled the provision between its legs, draw it by the tail to their habitation. They appear to act in concert, and assist each other for their common advantage.

The marmotte is capable of being tamed; and, when familiar, will play a thousand entertaining tricks. It is much attached to those who have the care of it, and will, in their presence, as if conscious of protection, bite the dogs which come in its way; to which species, like the cat, it seems to entertain a natural hostility.

No. 67.—THE JERBOA.

The head of this little animal resembles that of the rabbit; but its eyes are larger, and its ears not so long. The nose is bare and flesh-coloured; the muzzle short and thick; the opening of the mouth very small; the upper jaw large, and the under one narrow and short. The teeth resemble those of the rabbit; and the mouth is garnished with long black-and-white whiskers. The fore feet are too short to touch the ground, and the animal uses them only as hands, for conveying food to its mouth. These feet, or hands, have four toes, armed with claws, together with the beginning, as it were, of a fifth toe, without a

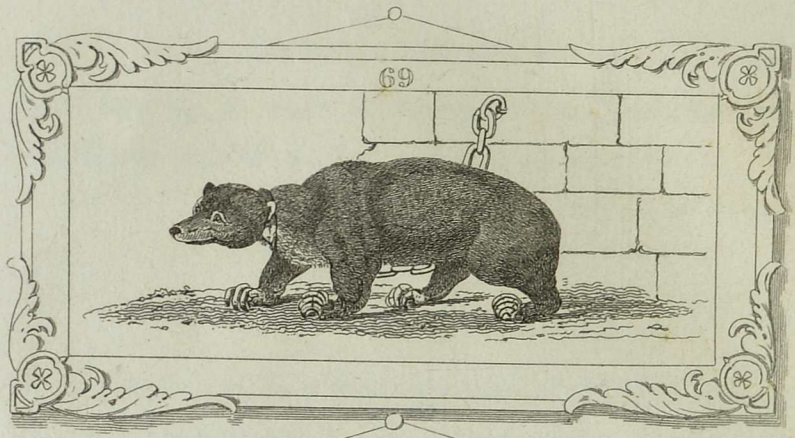
claw. The hinder feet have only three toes, the middle one larger than the other two, and all terminated with claws. The tail is three times the length of the body, and covered with short coarse hair, resembling in colour that on the back. The end of the tail is ornamented with long, soft, thick hair, forming a kind of tuft, black at the commencement, and white at the extremity. The legs are bare and flesh-coloured, as are the nose and ears. The upper part of the head and back are covered with reddish hair; the sides, the lower part of the head, the throat and belly, with the inner part of the thighs, are white. Below the loins, and near the tail, it has a transverse stripe of black, in the form of a cross. The jerboa is common in Circassia, Arabia, Egypt, and Barbary.

These little animals usually hide their fore feet under their hair, so that they appear to have hinder feet only. They do not walk, or move one foot before the other, but leap a yard or more at once, with both feet together, and always upright, in the manner of birds. During their repose they rest upon their knees, and sleep in the daytime only. They eat grain and herbs like the hare; and, being naturally gentle, may be tamed to a certain point. They bury themselves in the ground like the rabbit, but much more quickly;

and lay up a store of herbs in the summer, on which to repose during the winter season.

No. 68.—THE RACKOON.

This animal is about the size of the fox, which it also resembles in the shape of its head; but the body is shorter, and thicker in proportion to its length. The hair is soft, long, and tufted, black at the ends, and gray near the body. The ears are round and very short; the eyes large, and of a greenish yellow colour. It has a black band across the forehead, just above the eyes: the muzzle is long, and the nose a little turned up; the lower lip rather advances beyond the upper. The teeth resemble those of the dog; the tail, which is tufted, is nearly as long as the body, and marked with alternate rings of black and white; the fore legs are considerably shorter than the hinder. It has five toes on each foot, armed with very sharp claws. The heel is long enough to enable the animal to raise itself on its hinder legs, and to support its body in an upright position. It uses its fore feet to convey food to its mouth; but, as the joints are not very flexible, it is obliged to use both its fore feet on this occasion. It is extremely agile, and climbs



London Pub.d Dec. 1. 1825, by J. Harris, corner of St. Pauls.

with ease the tallest trees. Its gait is a kind of leap or bound; and its movements, though oblique, are very prompt and active.

The rackoon is a native of the warmer climates of America and Jamaica, where it lives among the mountains, only descending into the plains to feed upon the sugar-canes, of which it is very fond. A gentleman, who kept a rackoon for some time, says that, unless much pressed by hunger, it would not eat dry food, but always threw its bread into a pan of water, which was appropriated to its use; and, after it had soaked for a time, took it out and ate it. It would eat flesh, either dressed or raw, as also fish and fruit of all kinds. It was fond of insects, but seemed to prefer sugar, milk, and sweet food. It was gentle and playful, and would suffer itself to be caressed.

PLATE XIX.

THE SLOTH, THE HIPPOPOTAMUS, AND THE MUSK-BULL.

No. 69.—THE SLOTH.

According to M. De Buffon, there are two species, to which naturalists have given the name

of *sloth*, though they differ in some particulars of form and habits, viz. the *unau* and the *ai;* by which names these animals are distinguished in their native country. The unau has no tail, and only two claws on its fore feet; the ai has a very short tail, and three claws upon the fore feet. The unau has a longer muzzle; its forehead is more elevated, and its ears are more discernible, than those of the ai. The skin also of the two animals is different: that of the ai has more the appearance of rough dried grass, than of hair or wool; the skin of the unau is somewhat smoother. These animals, particularly the ai, seem totally incapable of resisting or of fleeing from their enemies; indeed, they seem scarcely able to procure their necessary sustenance. When pressed with hunger, the ai will crawl with a slow and awkward motion to the nearest tree, which it ascends with much labour and difficulty; and there it remains, crawling from bough to bough, till it has entirely stripped the tree of its foliage. Incapable of descending in the usual manner, here it hangs by the claws of the fore feet, till absolute want forces it to relinquish its hold; and then, dropping on the ground, as inert as a piece of inanimate matter, it crawls to another tree, which it ascends and strips, as before; and thus carries on its apparently useless and wretched existence.

From its extreme inactivity, and the dryness of its skin, this animal can endure hunger for a considerable length of time. The sloth has no cutting or canine teeth; its eyes are obscure, and much concealed; its jaws are thick and clumsy; its thighs badly jointed, and almost dislocated from the hip; the legs are very short and ill-formed; the feet badly placed; the hinder toe, or thumb, is wanting; and the toes, which are inflexible, are furnished with two or three very long claws, bent inwards, having no separate motion; and more inconvenient to the animal in walking, than useful in climbing. The extreme slowness and stupidity of this animal, arising from its peculiar conformation, render it absolutely incapable of attack or defence. It seems to have no means of security: for it cannot dig, like the mole, to cover itself in the earth; nor can it, like the squirrel, take refuge in flight. It seems confined, not merely to any particular country or climate, but to the very spot, or tree, on which it was born—" a prisoner," as M. De Buffon beautifully expresses it, " in the midst of space." The voice of this animal is plaintive, resembling its name, *a-i*, and is usually heard at night-fall.

The sloth inhabits the extensive deserts of America, from Brazil to Mexico. From its utter helplessness, it could not exist in an inhabited

country. It cannot endure cold or wet, and is not found in the northern parts of that vast continent. If any of these animals have been found in the eastern hemisphere, M. De Buffon is of opinion that they must have been carried thither by travellers; as the species was unknown to the ancients, and the creature has not the capability of transporting itself to the north-east, where the continent of America is either united with, or very narrowly separated from, Asia. This animal increases very slowly.

The unau differs in size. M. De Buffon mentions two small ones: one twelve inches in length, from the tip of the nose to the commencement of the tail; and another which was seventeen inches. The colour also varies: that of the smaller one was a brown musk, waved with a yellowish gray; the hair much shorter, and the colour less bright than that of the larger one. The hair under the belly was a clear musk colour, waved with ash; and the same colour was the brightest under the throat and neck, near the shoulders, where it forms a small band of pale yellow. The same author mentions also a large unau which he had seen alive, but has not given its dimensions. He concludes an additional article upon this animal by observing, that the large and small unau seem to be of the same species, differing only in size.

No. 70.—THE HIPPOPOTAMUS.

This animal, which, from the resemblance of its voice to that of the horse, is called *hippopotamus*, or *river-horse*, is of immense bulk. Its length is sixteen feet nine inches, from the extremity of the muzzle to the beginning of the tail. The circumference of the body is fifteen feet, and the height six feet and a half. The legs, which are two feet ten inches in length, are very short in proportion to the animal's vast bulk. The head is three feet and a half in length, and eight feet and a half in circumference over the broadest part; and the mouth is two feet four inches wide. The cutting-teeth and the two canine-teeth of the lower jaw are very long, and so extremely hard, that they will strike fire against iron like a flint, a circumstance which, perhaps, may have led some travellers to assert that this animal emits fire from its mouth. The form of these teeth is cylindrical and fluted. The canine-teeth, which are very long, are crooked, pointed, and sharp, like those of the wild-boar. The grinders are square, and resemble those of the human species; but so large, that one of them weighed three pounds. The largest cutting-teeth and the two canine-teeth are sixteen inches in length, and weigh twelve or thirteen pounds each.

The hippopotamus, according to M. De Buffon, is found only in the great rivers and lakes of Africa, chiefly in the southern and eastern parts of that continent.

From its prodigious size and strength, the hippopotamus might make itself a formidable adversary to every animal; but it is naturally gentle, and also so unwieldy and slow in its movements, that all animals are easily able to get out of its reach; yet it swims very swiftly, and is extremely expert in catching fish, on which it preys. It delights in the water, which seems, indeed, its natural element, though it will also sojourn, without inconvenience, on land. It is not, like the beaver and the otter, web-footed; and its faculty of swimming is chiefly owing to the enormous size of its belly, the weight or specific gravity of which is the same as that of water. It can continue a long time under water, and walks at the bottom of the sea as easily as in the open air. When the hippopotamus comes out of the water to feed, he regales himself on the sugar-cane, millet, rushes, and other vegetables, of which he is very fond, and consumes great quantities. He does much damage to the cultivated fields; but, being more timid on land than in the water, he is easily driven away. His legs are so short, that he would not be able to escape by flight, should he

wander far from the water-side; and his only resource, when in danger, is to throw himself into the water. When pursued, he seems intent only on making his escape; but if wounded, he becomes furious; and, rushing upon the boats, will seize them with his teeth, tear them in pieces, or immerse them under the waves. It has been said, that sailors on the coast of Africa, where the water is remarkably clear, frequently see this animal walking at the bottom of the sea, from whence he will sometimes rise and overturn the boats.

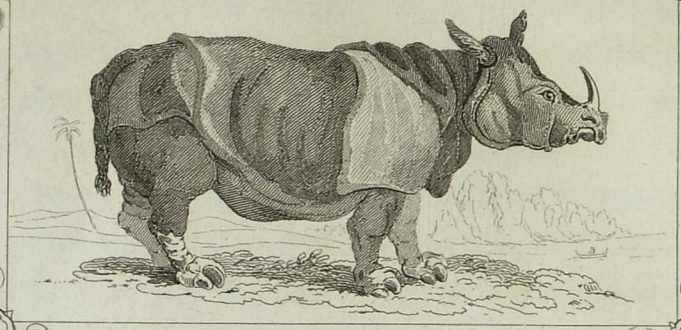
Some ancient authors have written, that this animal was found in the great rivers of India; but this fact is not confirmed by modern travellers, who all agree that the hippopotamus is found only in the Nile, the Senegal, the Niger, the Gambia, the Zaire, and other great rivers and lakes of Africa.

No. 71.—THE MUSK-BULL.

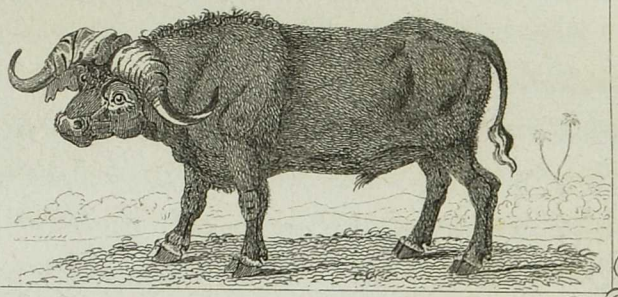
This animal is found in latitude 70°, near Baffin's Bay. The hair, or rather the wool, of the musk-bull is black, and much longer and more tufted than that of the bison, which inhabits the more temperate climates: on the neck

and belly it reaches almost to the ground. He feeds on white moss, like the reindeer; and is, in size, about the same as an European ox of the middle stature; but the legs are longer, and the horns more elegantly formed. The male weighs about five hundred and thirty pounds; the female about four hundred. The skin of this animal is more valuable than that of the common ox. The horns of the musk-bull are united at their base, or rather spring from one common origin at the top of the head. The head is two feet four inches and a half, measured from the tip of the nose to the point where the horns unite: the distance between the horns, at their extremity, is two feet six inches and a half. The head is broad; the distance between the eyes, from the centre of each, is one foot four inches. These are of the same species of wild cattle as are mentioned by Pennant as still existing in some parts of Scotland and Northumberland; but the latter are of a white colour, with black muzzles and ears, and destitute, he says, of manes. These animals are extremely fierce, and never mingle with other cattle, nor approach the habitations of men, except when pressed by hunger. The musk-bull in the British Museum was brought to England by Capt. Parry, on his return from his first northern expedition, in the year 1820.

72



73



74

London Pub^d Dec. 1. 1825, by J. Harris. corner of St Pauls.

PLATE XX.

THE RHINOCEROS, THE BUFFALO, AND THE BISON.

No. 72.—THE RHINOCEROS.

NEXT to the elephant, this is the most powerful of known quadrupeds. He is at least twelve feet in length, from the tip of the nose to the extremity of the body; six or seven feet in height: and the circumference of the body is equal to the length. The tail is three feet and a half in length. This animal appears less than the elephant, from its legs being much shorter in proportion to its body; it also differs materially in its natural faculties and intelligence. The rhinoceros wants many of those apparent advantages that nature has allotted to other animals. It has no feeling in its skin, and seems to have no part sensible to the touch. Instead of the trunk of the elephant, the rhinoceros has only one moveable lip.

The superiority of this animal consists solely in his great power and bulk. He is furnished with a very hard and perfectly solid horn, placed upon his nose, which is peculiar to this animal, and

which, from its situation, has the advantage over the horns of other animals, which can only protect the neck and upper parts of the head; but the horn of the rhinoceros defends his mouth and every part of his head from injury. The tiger will attack the elephant in preference to the rhinoceros; he will seize the elephant by the trunk, but he dreads the horn of the rhinoceros. The whole body and limbs of this immense animal are protected by an impenetrable covering, which not only resists the claws of the tiger and the lion, but on which the sharpest iron, and even a musket-ball, makes no impression. This animal has not the power of contracting his skin; but the impervious armour in which he is enveloped has large folds upon the neck, the shoulders, and the crupper, to give room for the movement of his head and legs. The latter are very massive, and terminated by huge feet, each armed with three large claws. The colour of this animal is a dusky black, unrelieved by any other shade. The head is larger than that of the elephant; the eyes are very small, and never seem more than half open. The upper jaw advances considerably over the under one; and the nether lip has a movement whereby it can elongate itself six or seven inches; it is pointed at the extremity, and enables the animal to crop his food, which consists of grass

and herbs, with greater facility than the elephant. Besides his horn, the rhinoceros has two strong cutting teeth in each jaw, so placed as to defend the lip. He has also twenty-four grinding teeth, for the purpose of masticating his food. The ears of the rhinoceros somewhat resemble those of the pig, but are upright and pointed, like those of the ass, though not so large in proportion to his bulk. The ears are the only part of this animal which are covered with skin and hair. The end of the tail, like that of the elephant, is ornamented by a knot of long coarse hair. The horn of the rhinoceros is much esteemed by the natives of India for its supposed medicinal virtues; such as are white, being more scarce, are more sought after. The voice of this creature resembles the grunting of a hog; but when angry, it assumes an extremely sharp sound.

The rhinoceros is not a gregarious animal. He wanders alone, and is more difficult to catch and to subdue than the elephant. He will not attack a man, unless provoked; and then he is very dangerous. The Japanese make targets of this animal's hide, which, as I before observed, is musket-proof, and impervious to any force of a warlike weapon.

No. 73.—THE BUFFALO.

The buffalo is a native of the warmer climates of Asia and Africa, but will live in health in the more temperate atmosphere of Europe, as in Italy and France. In its wild state, it is extremely savage, but will not attack men, unless provoked. Although this animal greatly resembles the ox, and is frequently domesticated with it, yet the buffalo never unites itself nor associates with the ox. M. De Buffon says, the cow will not suckle the young buffalo; nor will the female buffalo yield her milk to the calf of the cow. The buffalo is by nature less tractable than the ox, and is reduced to obedience with more difficulty. Next to the hog, he is the most filthy of all domesticated animals, from the extreme difficulty of cleaning him. His figure is large; his aspect stupid and ferocious; his head bends towards the ground, and his whole exterior is savage and unpleasing. His roar is hoarser and more terrible than that of the bull. He differs materially from the ox in the dark colour of his skin, which is thinly covered with hair; and his body is thicker, though not so long; his legs too are longer, and his head is smaller; his horns, less round, are black and partially compressed. The hair on his front is much curled, or frizzled. His

hide is thicker and harder than that of the ox; his flesh is dark-coloured, hard, and ill-flavoured. The milk of the buffalo is not so good as that of the cow, but is given in larger quantities. All the cheese in the warmer countries is made from milk of the buffalo. The tongue of the buffalo is esteemed good, but the hide is the most valuable part of the animal. Being larger and stronger than the ox, buffaloes are of great use in husbandry; they will plough and draw, but cannot be brought to carry burdens. They are usually kept in order by a ring passed through the cartilage of the nose. With their heads bent towards the ground, they apply their whole weight and strength to the draught, and the effect of two of these animals yoked to a carriage is equal to that of four horses.

The natural savageness and ferocity of these animals decrease as they advance into more temperate and colder climates. The buffalo of France and Italy is more docile than that of Egypt; and the buffalo of Egypt is less ferocious than that of India and Africa. Buffaloes are found in great numbers in Africa, where they bathe themselves in the vast rivers with which that continent is watered, and roam in large herds over its extended meadows. They make great havoc in the cultivated fields, but never attack men, and will not

run at them, unless they have been wounded, when they are very dangerous. They have a peculiar objection to the appearance of fire, or to any thing of a red colour; and travellers in those countries are careful not to clothe themselves in any garment of that colour. The buffaloes, like other large animals in hot countries, delight in the water; they swim remarkably well, and will cross the largest rivers without fear. Their legs being longer than those of the ox, they run more swiftly.

The negroes in Guinea, and the Indians in Malabar, frequently amuse themselves with hunting these animals. On such occasions, they never pursue them, nor attack them in front; but, climbing into trees, they lie in wait for them in the forests, where the buffaloes are impeded by their horns, and the size of their bodies. These people are fond of the flesh of the buffalo, and make considerable profit by the sale of their hides and horns.

No. 74.—THE BISON.

Although this animal agrees in some particulars with our ox, it is not of the same species. The difference is perceptible, not only in the bunch, or hump, on the back of the bison, but

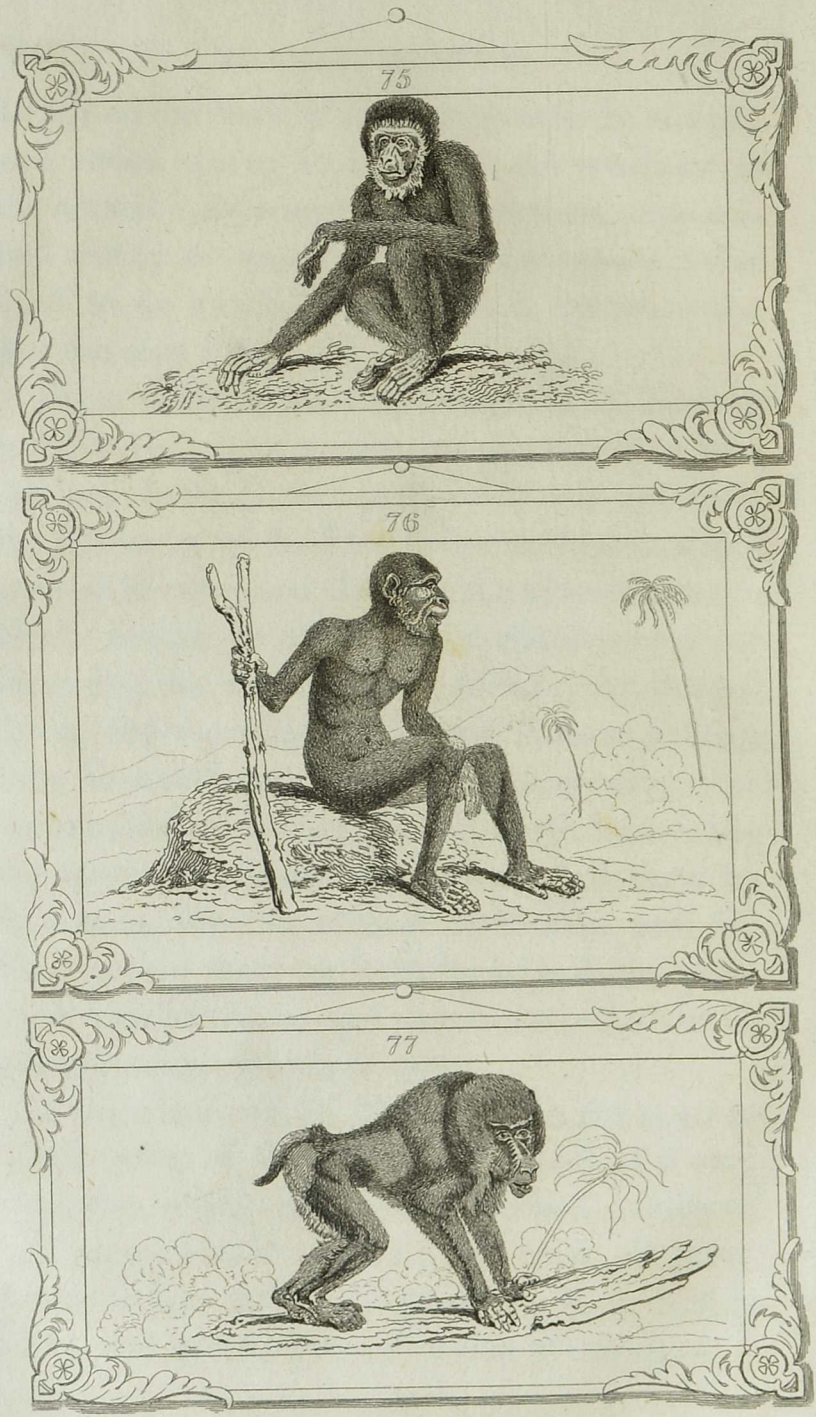
likewise in the quality, the quantity, and length of the hair.

The bison of Madagascar thrives well in the Isle of France. The flesh is superior to that of the oxen taken thither from Europe; and in a few generations the bunch on the back entirely disappears. The hair of the bison is softer, the legs are more slender, and the horns larger, than those of the European ox. M. De Quenhaut observes that he has seen bisons from Madagascar of an astonishing size. M. De Buffon gives the following account of a bison, which he saw exhibited in France and Holland. "This fine animal," he observes, "had been taken when young, in the forests in the temperate parts of North America. An enormous mane, not of hair but of wool, beautifully waving in long flocks, or tresses, enveloped the head and neck. This wool is remarkably fine, and of the same quality with that which covers the bunch on the back of the animal, and the whole body; during the entire summer, from as early as January, every part of the body of the animal was covered with a kind of fine wool, very thick and curling, under which the skin appeared of a very dark brown colour, nearly resembling soot: but the skin on the bunch, and on those parts where the hair, or wool, is very long, was of a tan colour. The

bunch on the back is composed entirely of flesh, and varies in size according to the condition of the animal. Although strictly confined, this animal was by no means ferocious, but would suffer itself to be handled and caressed by those who had the care of it."

These animals are very numerous in Tartary and Siberia. The species extends also from Madagascar to the farther point of Africa, and from the extremity of the East Indies to Siberia, many parts of Europe, and through the extended range of the temperate and northern climates of America; they are found also in Africa. At Buenos Ayres, and some degrees beyond it, these animals have so multiplied and filled the country, that the inhabitants do not think it worth their while to appropriate them: the hunters kill them by thousands, for the sake of their skin and fat. They pursue them on horseback, and cut them down with hatchets; and sometimes take them in strong leathern snares, or nets.

In the island of St. Catharine, on the coast of Brazil, some of this species are found of a very small size, owing perhaps to the bad quality of their nourishment; being, for want of grass, obliged to feed upon wild gourds. Their flesh is flabby, and greatly inferior to that of our oxen.



London Pub.d Dec. 1. 1825. by J. Harris, corner of St. Pauls.

PLATE XXI.

THE LONG-ARMED APE, THE OURANG-OUTANG, AND THE BABOON.

No. 75.—THE LONG-ARMED APE.

M. De Buffon speaks of having seen this animal when young; it was then not quite three feet in height; but he conceives that, when full-grown, it would reach to about four feet. It had no appearance of a tail; but its distinguishing characteristic was the immense length of its fore legs, or arms, which, when the animal stood upright, reached to the ground, so that it could walk upon four legs without bending its body. The face was surrounded with a circle of gray hair, like a frame, which gave it a very extraordinary appearance. The eyes were large and deeply set; the ears were bare and well-shaped; and the face was flat, and of a tan colour. Excepting the length of its fore legs, it bore, next to the ourang-outang, the greatest resemblance to the exterior of a human being. It was naturally tranquil; its manners were gentle; and it took what was given to it without violence. It lived

chiefly upon nuts, almonds, and vegetables, and had a great dread of wet and cold.

The same author observes, that these animals will not survive long out of their native country. They are natives of the East Indies, and are found chiefly in Coromandel, Malacca, and the islands adjacent to those coasts.

The species seem to vary in colour, some being brown and others black; but in every other particular the resemblance is so great, as evidently to mark them as one.

No. 76.—THE OURANG-OUTANG.

This animal approaches, in its external appearance, nearer to the human form than any other brute; it varies in height from three to seven feet. In general, its stature is less than that of a man; but it greatly exceeds him in strength and agility. Travellers, who have seen various sorts of these animals in their native solitudes, have given surprising accounts of their swiftness, ferocity, and address. They are found in many parts of Africa, in the East Indies, in Madagascar, and in Borneo. In the latter island, the people of quality hunt them, as we do the stag; and this is a favourite amusement with the

king himself. The skin of the ourang-outang is hairy; his eyes are sunk in his head; his countenance is stern; and all his lineaments, though resembling those of man, are harsh, and blackened by the sun. He sleeps under trees, and builds a hut to protect himself from the sun and rains. When the negroes have left a fire in the woods, he will approach, and warm himself by the blaze; but he has not sense enough to keep the flame alive by adding fresh fuel. These animals often go together in companies; and, if they happen to meet one of the human species remote from succour, they seldom shew him favour.

A negro-boy was once carried off by them, and lived with them upwards of a year. On his escape and return home, he described many of them as larger than men; and he said they never attempted to injure him. They frequently attack the elephant, beating him with clubs, till they compel him to leave that part of the forest which they claim as their own. When one of these animals dies, the rest cover the body with leaves and branches.

The manners of the ourang-outang, under confinement, are gentle, and generally harmless. Devoid of that disgusting ferocity, which is so conspicuous in some of the larger baboons and

monkeys, he is mild and docile, and may be taught to perform many entertaining tricks.

The ourang-outang described by M. De Buffon exhibited a very peculiar degree of sagacity; it walked upon two legs, even when it carried burdens. "I have seen it," says that excellent naturalist, "give its hand, to shew the company the door: I have seen it, at table, unfold its napkin, wipe its lips, make use of the spoon and fork to convey victuals to its mouth; pour its drink into a glass, and touch glasses, when invited; take a cup and saucer, lay them on the table, put in sugar, pour out its tea, leave it to cool, and then drink it. It would do all this merely at the signal, or command, of its master. It was gentle and inoffensive, and would even approach strangers with respect. It was particularly fond of comfits, which every body was ready to give it." It continued in Paris only one summer, and died in London of a defluxion on the chest.

The form and organs of this animal so nearly resemble those of mankind, that we are surprised to find them productive of so few advantages. The tongue, and all the organs of speech are similar; "and yet," says Mr. L. Murray, "the animal is dumb; the brain is formed in the same manner as that of man, and yet the creature wants

reason"—"an evident proof," as M. De Buffon finely observes, "that no arrangement of matter will give mind; and that the body, how nicely soever formed, is formed to very limited ends, when destitute of a soul to direct its operations."

No. 77.—THE BABOON.

We can scarcely imagine a more disgusting animal than this; it is extremely mischievous and ferocious, and must be kept constantly confined in a strong cage. This creature bears less resemblance to mankind in the form of its visage, than either the long-armed ape or the ourang-outang. Though extremely ferocious, it is not in the class of carnivorous animals, but lives upon fruit, roots, and grain. These animals will combine together to rob gardens, and throw the fruit from one to another over the walls; they do much mischief in cultivated grounds.

The tail of the baboon is about seven or eight inches long; the canine teeth are longer and thicker in proportion than those of the human species; the muzzle is very large and long; the ears are bare and flat; the body and limbs thick and clumsy; the hair is long, thick, and of a reddish brown; they walk sometimes on four feet, and

sometimes on two. The height of the baboon, when upright, is about three or four feet. Some of this species, M. De Buffon says, are larger; but in all other respects the same as this which we have described.

PLATE XXII.

THE GREEN MONKEY; THE MICO, OR FAIR MONKEY; THE JACCHUS, SANGLIN, OR STRIATED MONKEY; AND THE MONA, OR MONINA.

No. 78.—THE GREEN MONKEY.

This little animal is about fifteen inches in length, with a tail much longer than the body and head together. The head is very small; the muzzle long; the face and ears are black; and, instead of eyebrows, it has a narrow band of long black hair across the lower part of its forehead. The colour of the body is a lively green, slightly tinged with yellow; that of the breast and belly is a very pale yellow. It walks on four feet, and is a remarkably lively, active little animal; but, like all the monkey tribe, somewhat mischievous.

London Pub.d Dec. 1. 1826, by J. Harris, corner of St. Pauls.

This animal is a native of Africa, and is found in great numbers in Senegal, Mauritania, and the islands of Cape Verd, as well as in the extensive forests which border the river Niger.

No. 79.—THE MICO, OR FAIR MONKEY.

This animal and the next to it belong to the species, or division, of the monkey tribe called *Sagoins*, which differ in many respects from those already described, particularly in having the tail longer in proportion, straight, flaccid, entirely covered with hair, and incapable of laying hold upon any object; the cheeks, also, are unfurnished with pouches; the partition between the nostrils is very thick, and the apertures are placed on the sides, and not at the bottom, of the nose. This race is found only in America.

The mico is a very beautiful little animal; its length does not exceed seven or eight inches, but the tail is very long. The face and ears are bare, and of a bright vermilion colour. The muzzle is short; the eyes are much apart; and the ears large. The hair of the body is uniformly of a beautiful silvery white, and the tail of a shining brown, almost black. It walks upon four feet. This little

animal is found on the borders of the Amazons' river; it is extremely susceptible of cold, and will not live in our climate without the greatest care and attention.

No. 80.—THE JACCHUS, SANGLIN, OR STRIATED MONKEY.

The length of this animal rarely exceeds seven inches from the top of the head, which is very round, to the beginning of the tail; but the tail itself is nearly eleven inches long. The body is ash-coloured, reddish, and dusky, the latter shade disposed in striated bars across the body; the tail, full of hair, is also annulated with ash colour and black; the face is of a swarthy flesh colour; and the head black. About the ears, which are formed like the human, are two very long tufts of white hair, standing out on each side, like whiskers. The eyes are of a reddish colour. The hands and feet are covered with short hair, and furnished with fingers and toes, like those of a squirrel, armed with sharp nails, or rather claws. It is a native of Brazil; feeds on vegetables, but will also eat fish; makes a weak noise; is very restless; and is frequently brought over to England.

No. 81.—THE MONA, OR MONINA.

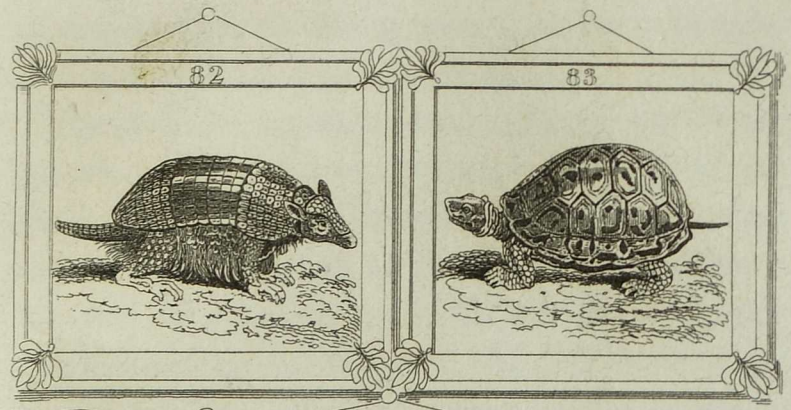
This animal, a native of the warmer climates of Africa and the East Indies, is found also in Barbary, Arabia, Persia, and other parts of Asia, which were known to the ancients. The length, from the end of the nose to the commencement of the tail, is about a foot and a half, and the tail is full two feet long. The head is small and round; the muzzle short and thick. The colour of the face is dark, or tawney; and it has a band of gray hair upon the forehead, extending from the eyes to the ears, and, downwards, to the shoulders and arms. It has also a kind of gray beard, formed by long hair on the throat and neck. The colour of the back is a reddish black, inclining to white under the belly. The exterior of the limbs is black; the tail is of a grayish brown, with two spots of white on each side, near the body; it walks on four feet. This animal is somewhat of a graver character than monkeys in general, yet sufficiently lively without ferocity. It is very docile, and seems attached to those who have the care of it, though it will bite strangers. It lives upon fruits and insects, and stuffs whatever it does not immediately swallow into the sides of its cheeks, whence it reproduces it, to be eaten at leisure.

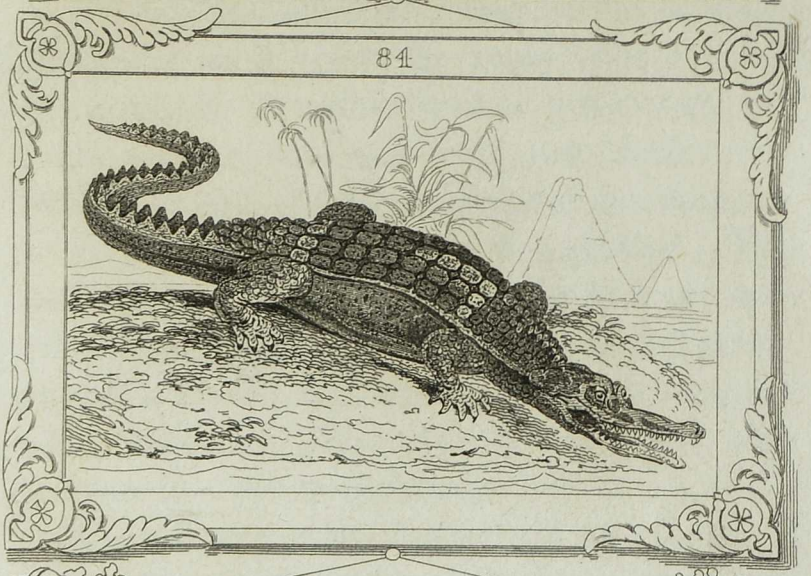
PLATE XXIII.

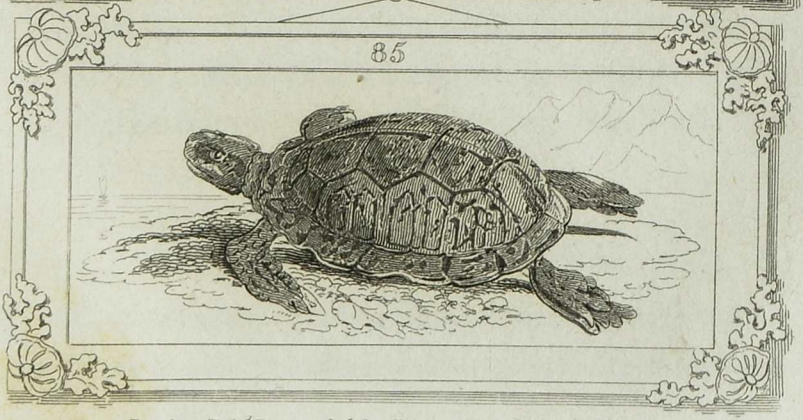
THE ARMADILLO, THE TORTOISE, THE CROCODILE, THE TURTLE.

No. 82.—THE ARMADILLO.

This animal is a native of South America. Like the tortoise, it is protected by a strong shell, which extends itself over the head, back, flanks, and tail. This shell is not of one solid mass, but consists of several flexible bands, composed of scales, which the animal can contract or dilate at pleasure, and in which, on the approach of danger, it envelopes itself. The throat, the shoulders, and the belly, over which these bands do not extend, are covered with a white marbled skin, resembling in its figures the plumage of a fowl. The head of the armadillo is small; the muzzle sharp; the ears are erect, and rather long; the tail is very long, terminating in a point; the legs are short, and the eyes small and black; it has four toes on the front feet, and five on the hinder. The colour of the shell, or bands, is iron-gray; the tail rather lighter. These animals, according to M. De Buffon, differ in size and in the number of bands which compose the shell. The body







London Pub.d Dec.1. 1825, by J. Harris, corner of St. Pauls

of the smallest is about seven inches in length, and that of the largest twenty one.

These little animals are perfectly harmless; but when they get into gardens, they regale themselves plentifully on melons, roots, and other vegetables. Although originally from the warmer climates of America, they will live in the temperate atmosphere of Europe. M. De Buffon says he saw one in Languedoc, where it was domesticated, and went about the house without doing any mischief. It walked with a quick step, but could neither run, nor leap, nor climb trees. When pursued, the only resource of these animals is to conceal themselves in the ground. The shell which covers them, though hard, is yet sensible to the touch. They generally conceal themselves during the day, and roam at night in quest of nourishment. They increase very fast, and produce four young at a time.

When closely pursued, they will sometimes get to the edge of a precipice, and, rolling themselves up in their shell like a ball, drop down to a considerable depth, without receiving any hurt.

No. 83.—THE TORTOISE.

The tortoise is furnished by nature with a sure defence against those injuries which other animals

are constrained to avoid by much labour and skill. Providence has given it an habitation secure and impenetrable to every attack, and which it carries with it wherever it goes; were it otherwise, so slow is its pace, that it could never escape the teeth and claws of its enemies. The shell wherewith this animal is completely secured from every attack is so hard in substance, that scarcely any force can break it. A loaded waggon has been known to pass over it without the least visible effect. This case consists of two parts; *viz.* the upper, or concave shell, which covers the back and sides of the animal; and the inferior, or lower shell, which is flat, and protects the belly. These two shells are closely connected at the sides; but have two openings, one in front, for the free ingress and egress of the head and fore feet; the other behind, for the hinder feet and the tail to pass through. The tortoise has the faculty of obtruding and withdrawing these members at pleasure.

These openings are so narrow as to be impervious to the beaks, teeth and claws of birds and beasts of prey. The head and feet of the animal are covered with scales, which give it somewhat the appearance of the lizard. The head is much rounded at the muzzle. The mouth extends from ear to ear; the ears are only perceptible by a

variation in the scales which cover the head. The jaws are furnished, each, with one piece of solid bone, so hard as to bruise the hardest substances. It lives entirely upon vegetables. One species of the tortoise, which, thus enveloped in its impregnable fortress, seems fitted only to act on the defensive, is nevertheless capable of carrying on an offensive war; it is called the *snapping tortoise.*

A gentleman told me of one of these creatures being placed before a tiger, who pawed it, and smelt at it for a considerable time, rolling it about like a ball, or a stone. At length, the tiger put his nose close to the opening through which the tortoise had withdrawn its head, which it immediately darted out, and seizing its adversary by the nose, kept its hold, in spite of all the efforts of the suffering animal to extricate himself.

The tortoise is a native of the warmer climates; when brought into this country, it buries itself in the ground during the cold season, and continues there in a state of torpor.

M. De Buffon says there are twenty-four varieties of this animal, differing from each other in size, and some other qualities, by which they are distinguished. The upper shell of the largest tortoise measures between four and five feet in length, and between three and four feet in width

over the back. The neck and tail of this animal are longer in proportion than those of the others; and it weighs about eight hundred pounds. The smallest animal of this kind is not more than seven or eight inches in length; and its weight does not exceed one pound.

The tortoise is an oviparous animal, producing its young from eggs, which it leaves in the sand to be hatched by the heat of the sun. It is said to live to an extraordinary age. I remember to have seen one at Holt, in Leicestershire, the seat of Mr. Neville, some years ago, which, I was told, had been an inmate of the place upwards of fifty years.

The shell of the tortoise is remarkable for its beauty and durability: its colours are principally orange and black; it takes the most beautiful polish, and has a fine transparency. Boxes of all kinds, combs, and a great variety of useful and elegant articles, are made of the shells of these animals.

No. 84.—THE CROCODILE.

As nature seems to have given the forest to the lion, and the air to the eagle, so the crocodile claims dominion over the arms of the sea, and the vast rivers, of the torrid zone.

This enormous animal dwells on the confines of the land and the waters; and extends his power over the inhabitants of both elements. He is larger and more terrible than the lion; and baffles with ease every adversary; but having less heat in his blood, he engages in fewer combats of danger.

The crocodile, although a ferocious animal, does not, like the tiger, delight in blood: he preys only to satiate the cravings of nature; and, when pressed by hunger, will attack any animal, the most ferocious, and even man himself.

In his general form, the crocodile resembles the lizard; but he has peculiar characters, which mark him as a distinct species. His head is very long in proportion to his body, and his enormous mouth, armed with tremendous rows of sharp-pointed teeth, extends the whole length of his head, and when open to receive his prey, represents in reality the figurative expression of the "jaws of death."

The upper jaw is larger than the lower, and, when the mouth is closed, wraps over it, enclosing it within a rim or border. The lower jaw alone is moveable, as in all quadrupeds. The crocodile has no lips; and when it walks or swims, it shews its teeth as if in a rage; and its sparkling eyes, placed very near to each other in an oblique

direction, add much to the appalling nature of its appearance. The eyes are furnished with large rugged lids, which it moves in a kind of menacing manner. This appearance has led travellers to attach a character of cruelty to this animal which it does not merit. It seems to feel its superiority, and to prey only for the purpose of food. The ears are small, and generally concealed by a hard substance, resembling the eyelids; which has given occasion to some travellers to assert that the crocodile has four eyes. When this lid is raised, the membrane of the ear is distinctly visible. Herodotus relates, that the tame crocodiles kept at the court of Memphis, had ornamental rings fastened to this lid, or covering. The tail of this animal exceeds the body in length, of which it seems to be only a prolongation; it is of great use in directing the animal through the water, and in accelerating its velocity, by beating the water in a surprising manner. The toes of the hinder feet, four in number, are connected by a web, or membrane, such as we see in water-fowl. The fore feet have four toes each; the three foremost armed with strong claws, about two inches in length. The crocodile is covered with scales of a yellowish green colour, in stripes, much resembling what we call bronze. The skin, or scales, are bullet-proof; and the ancients

are said to have made helmets of it. The size of this animal varies; the largest is from twenty-eight to twenty-nine feet in length; but the ordinary length of those on the coast of Guinea is about thirteen or fourteen feet. The crocodile lays its eggs in the sand, where it leaves them to be hatched by the heat of the sun. As soon as hatched, the young crocodile takes immediately to the water.

The crocodile has many enemies in the enormous monsters which frequent the vast rivers and seas of the torrid zone. Of these the hippopotamus is the most formidable, as it can follow its prey to the bottom of the sea. The tiger also is a formidable adversary to the crocodile; but is often attacked, in his turn, by the larger of these animals. The tiger lies in ambush on the banks of the river, and seizes upon the crocodile just as it lifts its enormous head out of the water; in vain, however, it strikes its claws into the eyes of the animal; the vast beast, immediately immerging again into the water, drags its ferocious enemy with it to the bottom.

The negroes of Senegal attack this very formidable animal whilst sleeping; for this purpose they cover their arms with a thick hide, and pierce the eyes and throat with long javelins; they then fix pointed sticks between his extended

jaws, and drag him to the water, where he is soon suffocated by the quantity he is compelled to swallow. In Egypt, the natives dig pits in the paths frequented by the crocodile, which they cover with branches and earth; they then alarm the animal by a loud shout; and as he pursues his usual course to the water, he falls into the snare. Another method of taking this animal, is by fastening a very strong rope to a large tree, and tying a lamb with a hook at the other end of it; the crocodile, enticed by the cries of the lamb, is presently caught by the hook. In this state he raves till nearly exhausted. The rope is then loosened from the tree, and he is suffered to plunge into the water, where his remaining strength is soon exhausted, and he is dragged back to the shore an unresisting prey.

Another mode of taking this animal, practised by the natives of Florida, is very singular: they carry a tree, plucked up by the roots, and advance to meet the crocodile, which advances towards them with its vast jaws open, ready to receive and devour his prey; but they thrust the tree into his enormous mouth, when he is soon overturned and put to death.

The natives of the countries where these creatures are found eat their eggs and their flesh, which they esteem a great delicacy. It has, how-

ever, a strong flavour of musk, which renders it unpalatable to Europeans.

This animal was unknown to the Romans before the reign of Augustus Cæsar, who exhibited some crocodiles in the arena. In the countries which they inhabit, crocodiles were worshipped as the tutelary deities of the place. Divine honours were paid to them, and priests appointed to serve at their shrines; their carcases were religiously interred in the pyramids near to the tombs of their kings. In the same countries, after a lapse of two thousand years, we find a price fixed upon the head of this very animal, which the poor superstitious natives had worshipped as a god.

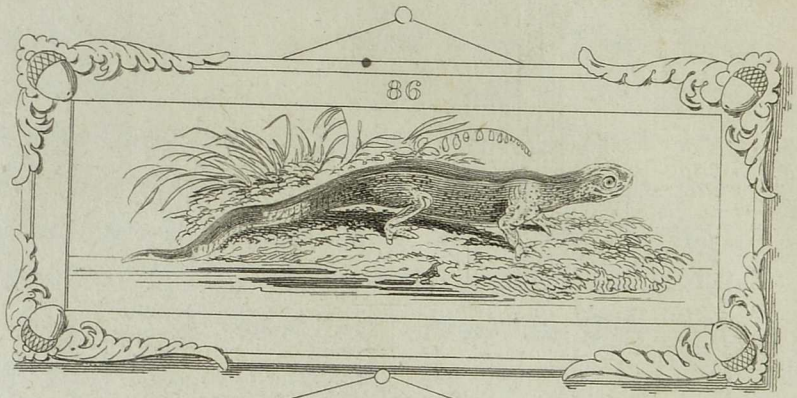
No. 85.—THE TURTLE.

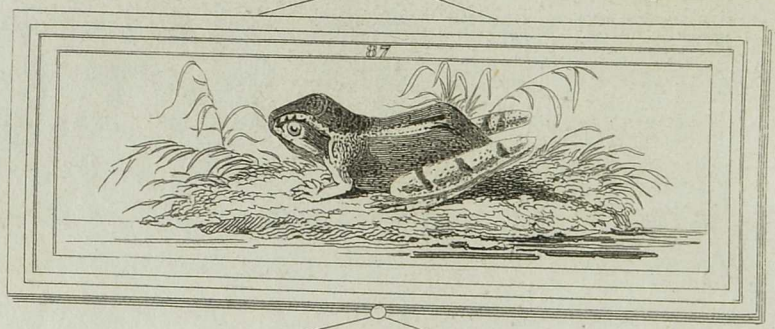
This animal, which is also distinguished by the name of the *sea-tortoise*, differs little from the land-tortoise excepting in its feet, which are very long, and resemble the broad or flat part of an oar, or those of the seal, or phoca, whereby it is adapted to its peculiar element. It lays its eggs in the sand on the sea-shore, and leaves them to be hatched by the heat of the sun.

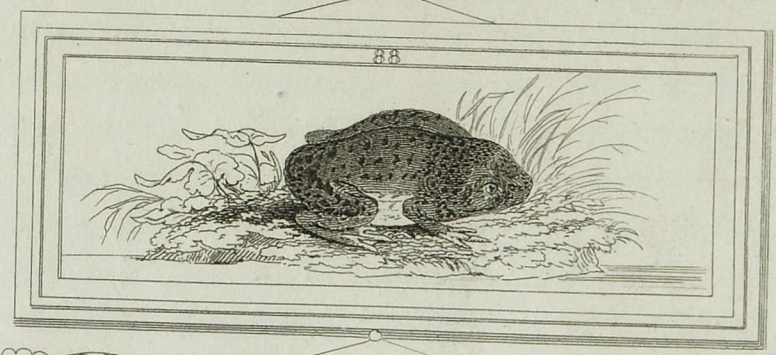
These animals are found in great numbers in the West-India Islands, and that part of America

which lies under the torrid zone. Their flesh is esteemed a great delicacy; and is brought to England and sold at a great price. I have been told that, during the whole voyage, these poor animals are laid upon their backs, on the deck, a position necessary to prevent their flesh from wasting. The times for depositing their eggs varies in different places. In the West Indies, they come on shore for this purpose from April to September; and on the coast of Africa from September to January. The fishermen at these times hunt for their eggs; and, catching the young turtles, confine them in places where the sea flows in, and there keep them till they are fit for exportation. The flesh of the female is at this season greatly preferred to that of the male.

The turtles frequently come on shore in the night for the purpose of depositing their eggs. The fishermen watch for them on the beach, and on their return to the water, after having deposited their eggs, attack them with poles and clubs. It has been said that some of them are so large and heavy as to require the use of the pole as a lever to turn them on their backs, in which situation of complete helplessness they will utter the most plaintive cries, and even shed tears of agony and fear. This animal varies in size in the same proportions as the land-tortoise.







London Pub.d Dec.1 1825, by J. Harris, corner of St. Pauls.

PLATE XXIV.

THE LIZARD, THE FROG, THE TOAD, AND THE CAMELEON.

No. 86.—THE LIZARD.

Lizards constitute a very numerous family: naturalists have reckoned as many as fifty-six species, differing in their habits and characters.

The body of this animal is covered with scales, or sometimes with small tubercles. They differ much in their length: reckoning the crocodile in the number, from twenty-eight or thirty feet, to two or three inches. The form and proportions of the tail differ in all these various kinds: in some the tail is flat; in others round; in some it is three or four times the length of the body; in others very short; in all it extends horizontally, and seems to be a prolongation of the body.

The hinder feet of the lizard are longer than those in front; some have five toes on each foot, others only four or three. The five toes on the hinder feet are unequal in length, the two in the middle being longer than those on the sides; the exterior toe is separated from the rest in the manner of a thumb. The bones of the toes are

not always three or two, as in most viviparous animals, but sometimes four, as in many kinds of birds. This gives the lizard great facility in seizing the branches of trees, and holding them in its gripe.

The habits of these animals are as different as their conformation: some pass their lives in the water; some live on the margins of great rivers, or in marshes and uninhabited places; others live in the midst of woods, running with great swiftness among the branches of the highest trees. Some of these animals have a sort of membrane on their sides resembling wings, by the help of which they take surprising leaps.

These animals live upon insects and small birds. Amongst us, they inhabit old walls and dry rocky banks; their general colour is a greenish brown. They are perfectly harmless; and, I have been told, that, in India, the ladies sometimes carry them about their persons.

No. 87.—THE FROG.

Although this animal is well known amongst us, it merits our attention. It is quite harmless in its disposition and habits, and useful in the destruction of insects, which would otherwise be-

come noisome from their numbers. The frog is of the lizard family, but so distinguished by its formation, as to be accounted a distinct species. The length, from the tip of the nose to the extremity of the body, is about two inches and a half; it has no tail. It is very lively and active, and so very irritable, as to be susceptible of the slightest touch. The muzzle is pointed; the eyes are large, brilliant, and surrounded by a circle of a golden colour; the ears are placed just behind the eyes, and covered by a membrane; the nostrils are at the extremity of the muzzle; the mouth is large, and without teeth; the body is contracted towards the hinder part, and presents some small pointed tubercles, which are common to most oviparous animals. The upper part of the body is green, and the under part white; these colours are relieved by three stripes of yellow, the whole length of the body, spotted with black. The front feet have four toes each, united by a membrane, or web; the hinder feet have five toes each, united in the same manner. This animal is very nice in the choice of its food, rejecting whatever is in the least tainted; it will take nothing which it does not see move. Its ordinary food is snails, leeches, and insects of all kinds. The manner in which it takes them is peculiar:—the frog sits quite still, till it perceives its prey

within its reach; it then darts upon it, and touches it with its tongue, which, being covered with a glutinous matter, attaches itself to the insect.

The frog lives much in the water, where it lays its eggs, and leaves them to be animated by the heat of the sun. These eggs bear no resemblance to those of a bird; but consist of a vast number of small dark globules, enveloped in a substance like jelly. In France, the frog is esteemed a great delicacy, and served up at a considerable expense; the hinder legs only are used on these occasions, which, with the assistance of French cookery, are by no means disagreeable to the taste. The frog changes its skin in the spring, like most oviparous animals.

No. 88.—THE TOAD.

This poor animal has the misfortune to be in general bad repute: its form, though somewhat resembling that of the frog, is by no means so agreeable to the sight.

The toad is very broad and round; the back flat, and the belly large and bloated. The colour is of a dark ashy hue, with large black spots; the skin is thick, and difficult to pierce; the head large in proportion to the body; the mouth very

wide, and flanked by rugged jaws; the eyelids are apparently swelled; and the eyes are large, prominent, and very animated.

It shews strong marks of irritation when disturbed, and will swell itself out, and resist, for a long time, any weight, or force, by which it may be attempted to crush it. In some parts of America, this animal grows the size of six inches in length; I have never seen one in our country more than three, or three and a half. It usually inhabits ditches, marshy grounds, and the foundations of old walls. I have heard of a toad having been found in the centre of a fragment of rock perfectly solid, with no visible means of entrance.

The toad is a great enemy to serpents, with which it is said to sustain a long combat, spitting forth a venomous poison, which is fatal to its enemy. These animals are produced in the same manner as frogs; and, although not so pleasing to the sight, are of use in the general system, by feeding upon reptiles and insects; which, if suffered to increase, would be prejudicial to mankind. The voice of this animal resembles the croaking of the frog.

No. 89.—THE CAMELEON.

M. Le Bruyn gives the following account of this animal:—

He purchased four of them at Smyrna, and kept them in a large cage, permitting them now and then to run about the room. They were much delighted to be in a large room, exposed to the sea breezes, and opened their throats very wide to inhale the air. Excepting flies, which they caught with their tongue, M. Le Bruyn never saw them either eat or drink. They frequently changed their colour in the space of half an hour, without any colour being near them, to which the change might be attributed. The colours which they commonly assumed, were different shades of green, mixed with small spots of yellow and brown; sometimes they assumed a brown colour, like that of the mole; their ordinary colour is a sort of mouse-gray. Their skin is very thin, and almost transparent. M. Le Bruyn thinks that those naturalists are mistaken, who assert that the cameleon assumes the colours of things on which they lie. He never observed his cameleons to assume a red colour; but, one night missing one of them, he found it on a white silk night-gown, as white, in appearance, as the silk itself. He could not keep them alive more

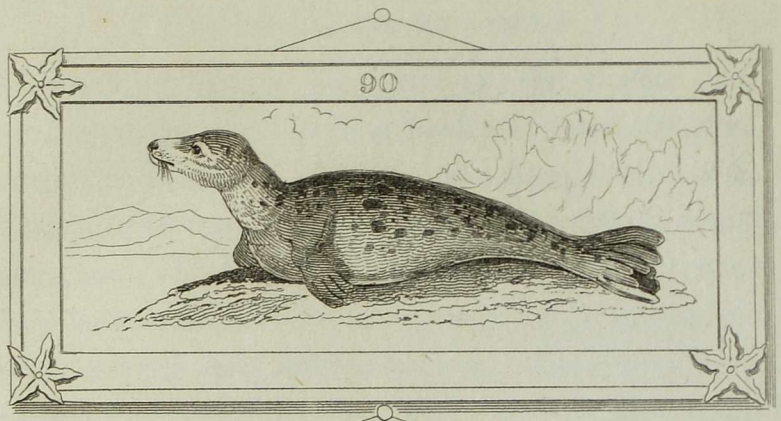
than four months : upon opening one of them he found thirty eggs, about the size of those of a small bird, fastened together in a string or chain; but he could trace nothing resembling the entrails in other animals. Their tongue is as long as their whole body, and with it they catch flies, which seem to constitute their chief food; they are very expert at this exercise. The cameleon sits perfectly still, and when a fly comes in its way, darts out its tongue on a sudden; and, catching it on the tip, swallows it immediately. They are said to have another mode of catching flies, but M. Le Bruyn never saw his cameleons practise it. They sit as if they were asleep, with their tongue stretched out the whole length of their body: the flies alight upon the tongue; and when the creature perceives a sufficient number of them lodged upon it, he withdraws it so quickly, that scarcely one escapes. The eyes of this animal are very small, round, and as black as jet; and, what is very remarkable, it can turn one of them one way, and the other another; so that it can look upwards and downwards at the same time. The cameleon is extremely wary in in descending from a high place, and its gait is slow.

PLATE XXV.

THE SEAL, OR SEA-CALF; THE WALRUS, OR SEA-HORSE; AND THE URSINE, OR SEA-BEAR.

No. 90.—THE SEAL, OR SEA-CALF.

Mr. Pennant mentions the usual length of the seal on the British coast to be from five to six feet; and he gives the following account of a young one which he measured—proportional allowance must be made for the measurements of such as have attained their full growth:—the length, from the tip of the nose to the end of the hind feet, was two feet nine inches; to the end of the tail, two feet three inches; the length of the head, seven inches; the tail, two and a half; the fore legs were deeply immersed in the skin of the body; the hinder legs were so placed as to point directly backwards, and were ten inches in length; each hinder foot, when extended, was nine inches and a half broad; every foot was divided into five toes, connected by a strong and broad web, covered on both sides with short hair; the toes were armed with strong claws, well adapted to assist the animal in climbing the rocks



London Pub.d Dec. 1. 1825. by J. Harris, corner of St. Pauls.

on which it basks; the claws on the hinder feet were about an inch in length, slender and straight, except at the ends, which were a little incurvated. The circumference of the body, in the thickest part, over the shoulders, was one foot ten inches; but, in the narrowest part, near the hinder legs, it measured only twelve inches. The head and nose were broad and flat, like those of the otter; the neck was short and thick; the eyes were large and black. It had no external ears; but, in lieu of them, two small orifices; the nostrils were oblong. On each side of the nose were several long stiff hairs; and a few of the same kind over each eye. The form of the tongue in this animal is so singular, that, were other notes wanting, this alone would serve to distinguish it from all other quadrupeds; it is forked, or slit at the end. The cutting teeth also are remarkable for their number, being six in the upper jaw, and four only in the under. It has two canine teeth above and below, and, on each side of the jaws, five grinders; the total, thirty-four.

The animal was covered with short hair, very closely set; the colour of that on the head and feet was dusky; the same on the body, but spotted irregularly with white; on the back, the dusky colour predominated; on the belly, white was the prevailing colour. But seals vary greatly in

their marks and colours, and some have been found entirely white.

Seals are commonly found on the rocky shores of Great Britain, and on those of the northern seas. They prey entirely on fish, and devour their prey beneath the water; they swim and dive remarkably well, and will often approach very near to boats. Their dens are in hollow rocks and caverns, near the sea, but out of the reach of the tide. In the summer, they will lie basking upon the tops of large stones, or rocks, surrounded by the sea, where they are easily shot and taken. If they chance to escape, they will scramble towards their proper element, casting up the stones and dirt behind them, and wailing in a most piteous manner; but, if overtaken, they will make a vigorous resistance with their teeth and claws, and are no mean adversary. Their flesh yields a good deal of oil, and their skins are very valuable, being used for covering trunks and other articles of convenience. The seal produces her young about the beginning of autumn. The fishermen have seen two young ones sucking their dam at the same time, as she stood upright in the water.

These animals are extremely watchful, seldom sleeping longer than a minute without moving; they then raise their heads, and if they hear or

see nothing more than common, lie down again. Providence seems to have endowed them with this watchfulness for their greater security; for, being unprovided with external ears, they would otherwise be liable to be surprised by their enemies.

No. 91.—THE WALRUS, OR SEA-HORSE.

This animal, which is a species of seal, or phoca, is as large as a full-grown ox. The feet resemble those of the seal, and are each terminated with five toes, or claws; the head is very large and round; the skin, which, about the neck, is an inch in thickness, is of a mouse-colour, and usually much lacerated, particularly at the joints. The upper jaw is furnished with two teeth, upwards of two feet in length; the young have not these teeth, but they make their appearance as the animal grows to maturity. These teeth are more esteemed than those of the elephant; they are solid throughout, but have a separation at the roots. The mouth of this animal is as large as that of the ox; the lips are garnished, above and below, with a great number of hairs, or rather bristles, as large as a common-sized straw, and hollow within; above this kind of beard are two nostrils, of a semicircular form,

through which the animal throws up the water like a whale, but with less noise. The eyes are considerably elevated above the nose, and of a red colour; the ears are placed a little above the eyes; the tongue is full as large as that of the ox; the neck is so thick, that the animal turns its head with difficulty, which gives a kind of distortion to its eyes; the tail is short. This animal has the usual appearance of such as live on fish and vegetables. It plunges head foremost into the water, and will sleep in that element as well as on the ice; and so quietly does it lie, that it has the appearance of being dead.

These animals are ferocious and daring, and will sometimes unite to defend each other; they will make prodigious efforts to release any that have been taken, and will throw themselves with great spirit on the boats, tearing them with their teeth, and uttering at the same time the most terrible roarings; and if, by their numbers, they compel their adversaries to take flight, they will pursue till they totally lose sight of them. These animals are found in the North Sea, and on the shores of the Frozen Ocean.

No. 92.—THE URSINE, OR SEA-BEAR.

THE last animal in this excellent collection is the ursine, or sea-bear.

The ursine is considerably larger than the commom land-bear. M. De Buffon mentions one, whose skin measured twenty-three feet in length, which is more than triple the size of the largest land-bear. One of these animals was taken on the coast of Nova Zembla, which measured thirteen feet in length. This animal differs so much in appearance and character from the common land-bear, that M. De Buffon pronounces it to be a different species. The head and neck are much longer, in proportion to the body, and more finely formed; the body also, and indeed the whole figure is much more light and agile; the colour is white. The extremities of the feet differ from those of the land-bear, and seem to have a greater affinity to those of the human species; they are armed, however, with sharp claws. The mouth of the sea-bear is small, but furnished with tremendous teeth. It is extremely ferocious, and will attack its pursuers with the most undaunted fury. These animals inhabit the shores of the Northern Ocean. Their attachment to their young is very strong, and the most affecting stories have been related of the

extraordinary effects of this passion. The voice of the sea-bear resembles the hoarse growling of an angry dog.

It is related of the late Lord Nelson, that, when a midshipman, and cruizing in the North Sea, he recollected his father having expressed a wish to have the skin of a white bear; he, therefore, took an old musket, without a lock, as a club, and sallied forth on the ice in quest of a bear. He soon found one; and, with a courage and presence of mind peculiar to himself, he attacked the ferocious monster, killed him, and returned to his ship, dragging along the object of his pursuit. I need not attempt to describe the pleasure which this amiable and undaunted young hero experienced in presenting his venerable parent with the first fruits of his courage and intrepidity, nor the feelings with which that parent received this tribute of filial duty and affection.

There is another species of *ursine*, perfectly distinct from the one just described, and which is found in all the seas, from the equator to fifty-six degrees of latitude, in both hemispheres. This animal, which resembles the seal, or phoca, is about seven or eight feet in length from the muzzle to the extremity of the hinder legs, and about seven feet from the nose to the tail. It bears no resemblance

to the white bear, except in the anatomy of the head, and in the fore part of the body, which is thick and fleshy. The head, which is covered with an oily membrane, about an inch in thickness, is rounder than the head of the land-bear, and about two feet and a half in circumference at the back of the ears, and eight inches in length from the ears to the nose. The ears are about an inch and a quarter in length, pointed, and of a conical form; they are smooth and bare on the outside, and have a longitudinal opening, which the animal can close when it plunges into the water. The eyes are prominent, and resemble those of the ox; the iris is black; they are furnished with lids, garnished with lashes, and defended, like those of the seal, with a membrane, which the animal has the power of drawing over them. The mouth is garnished, above and below, with long whiskers; the teeth are pointed, and so disposed, that the points of those in the upper jaw exactly correspond with the intervals of those in the lower, and *vice versâ.* It has thirty-six teeth—twenty in the upper jaw, and sixteen in the lower. The character peculiar to the ursine is the form of its feet; they are furnished with a kind of fin, resembling the flat part of an oar, which unites the toes of the fore feet: those of the hinder feet are likewise united by a similar mem-

brane, which gives them somewhat the appearance of the foot of an aquatic bird. The fore feet alone serve the animal for walking. It uses the hinder feet only in swimming and for scratching itself; in walking, it drags them after it, as a kind of incumbrance. The fore feet are about two feet long, and seven or eight inches broad; the hinder feet about twenty-one inches in length. The colour of the ursine, when young, is nearly black; as it grows older, it changes to a very light gray, or a silvery white; its countenance is not unpleasing. These animals live in families, some of which include so many as one hundred and twenty individuals: they have a strong family affection; the male appears like a good master and father, and is extremely jealous of his authority; for he corrects, not only the young, but the female herself. It is said, that, if one of the family be taken away, the rest express their affliction by the most piteous cries and tears. They are said to be capable of uttering various sounds, expressive of anger, fear, and sorrow; their general cry resembles that of a calf. As soon as the young are capable of providing for themselves, they leave the paternal home, and form each another family.

The ursine is extremely ferocious; and, if attacked, will turn upon its enemies with great

fury, gnashing and grinding its teeth in a threatening manner. It does not, like most other animals, flee on the approach of man. They swim remarkably well, and take great delight in sporting in the water.

THE END.

LONDON:
PRINTED BY COX AND BAYLIS, GREAT QUEEN STREET.

9. STORIES FROM THE SCRIPTURE HISTORY OF THE NEW TESTAMENT. By the same Author. With twenty-four Engravings.

The above stories, from the Scripture History of the Old and New Testaments, form a suitable sequel to the approved little Works, on the same plan and subject, by Mrs. Trimmer.

10. NORTHERN REGIONS; or, a Relation of Uncle Richard's Voyages for the Discovery of a North-west Passage; and an account of the Overland Journeys of other enterprizing Travellers. Illustrated with twenty-four Engravings. Price 8s. half-bound.

11. PICTURE OF THE MANNERS, CUSTOMS, SPORTS, AND PASTIMES OF THE INHABITANTS OF ENGLAND, from the Arrival of the Saxons down to the Eighteenth Century; selected from the Ancient Chronicles, and rendered into modern Phraseology, so as to form an entertaining Work for young Persons. By J. Aspin, Author of "A Systematic Analysis of Universal History, &c." Illustrated with twenty-four Engravings. Price 7s. 6d. half-bound.

In this little volume a succinct account is given, in familiar language, of the Manners, Customs, Sports, and Pastimes, of our ancestors; from which may be deduced the origin of many observances in the present day. The object of the Author has been to combine amusement with instruction, and to furnish his reader with a fund of anecdote relative to domestic history, which cannot fail to be useful in his subsequent studies. The collection has been made from a mass of well authenticated documents, which rarely fall into the hands of any but professed antiquaries; and, from the intermixture of the subject with matters of dry, though erudite disquisition, would scarcely attract the notice of those for whom this work is intended; divested of this formality, the subject becomes entertaining, and will well repay the reader for his trouble in perusing it. The fashions, modes of living, and diversions of our forefathers are brought into review, and the origin is developed of many existing practices, which, without some such help, would still remain, to the reader, shrouded in mystery.

12. ALFRED CAMPBELL, the Young Pilgrim; containing Travels in Egypt and the Holy Land. By Mrs. Hofland, Author of "The Son of a Genius." Illustrated with twenty-four Engravings. Price 6s. 6d. half-bound.

13. STORIES FROM ENGLISH HISTORY, chronologically arranged, from the earliest Times to the present Period. By the Author of "Always Happy," "Stories from the Ancient and Modern History," &c. With thirty-six Engravings.

14. TALES OF THE HEATH, for the Improvement of the Mind. By Mrs. D. Bayley. With a Frontispiece. Price 5s. 6d. boards.

15. THE GEOGRAPHY OF THE GLOBE, intended for Senior Pupils in Schools, and Private Families. By John Olding Butler, Teacher of Writing and Geography.

16. A BRIEF MEMOIR OF THE LATE WILLIAM BUTLER, Teacher of Writing and Geography. By his Son, JOHN OLDING BUTLER. Price 1s.

17. EMILY; a Tale for Young Persons. With a Frontispiece. Price 5s. bound in roan. 12mo.

Shortly will be published,

18. BEGINNINGS OF EUROPEAN BIOGRAPHY, consisting of the Lives of One Hundred Persons most eminent in the History of Modern Europe; by whom it has been invaded or governed; who have contributed to its Improvement or Destruction; or have rendered themselves conspicuous by the Superiority of their Intellectual Attainments. By the Rev. ISAAC TAYLOR, Author of "British Biography," &c. With appropriate Designs.

19. THE STUDENTS; or, Lives of Grecian and Roman Philosophers. By the Author of "Wars of the Jews." With Plates.

26. TRAVELS IN ASIA MINOR AND ARABIA PETREA; or, Alfred Campbell's Second Pilgrimage to, and Return from, the East. By MRS. HOFLAND. With sixteen Plates, &c.

21. NUTSHELLS OF KNOWLEDGE; or, the MINE. By the Rev. ISAAC TAYLOR. With Plates.

22. STORIES FROM THE HISTORY OF FRANCE. New edition, with twelve plates, 12mo.

23. QUESTIONS IN ROMAN HISTORY. By JOHN OLDING BUTLER.

24. SCENES OF INDUSTRY; or, the History of Bees and Ants. By the Author of "Wars of the Jews," "Students." &c.

*** *New and Improved Editions of the following established Works:*

1. TRUE STORIES FROM ANCIENT HISTORY, chronologically arranged, from the Creation of the World to the Death of Charlemagne. By the Author of "True Stories from Modern History," &c. New Edition. Illustrated with seventy-two Engravings. Price 7s. 6d. half-bound. Fourth Edition.

2. TRUE STORIES FROM MODERN HISTORY, chronologically arranged, from the Death of Charlemagne to the Battle of Waterloo. By the Author of "True Stories from Ancient History," &c. Illustrated with twenty-four Engravings. Price 7s. half-bound. Third Edition.

3. TRUE STORIES FROM THE HISTORY OF SCOTLAND. Illustrated with twelve Engravings. Price 4s. half-bound. Fourth Edition.

4. THE WARS OF THE JEWS, as related by JOSEPHUS; adapted to the Capacities of Young Persons, and illustrated with twenty-four Engravings, Price 6s. half-bound, plain; or 7s. 6d. coloured. Third Edition.

5. SCENES OF BRITISH WEALTH, in its Produce, Manufactures, and Commerce; for little Tarry-at-Home Travellers of every Country. By the Rev. I. TAYLOR. Illustrated with eighty-four Engravings. Price 7s. 6d. half-bound, plain; or 9s. 6d. coloured. Second Edition.

6. SCENES IN ENGLAND, for the Amusement and Instruction of little Tarry-at-Home Travellers. By the Rev. ISAAC TAYLOR, Author of "Scenes in Europe," &c. With eighty-four Engravings. Price 5s. half-bound, plain; or 7s. coloured. Third Edition.

7. The TRAVELLER; or, an Entertaining Journey round the Habitable Globe. Fourth Edition. Illustrated with Plates, consisting of Views of the principal Capital Cities of the World. The Plates are entirely new, and the Work improved by various Emendations and Additions. Price 6s. half-bound, plain; or 7s. 6d. coloured.

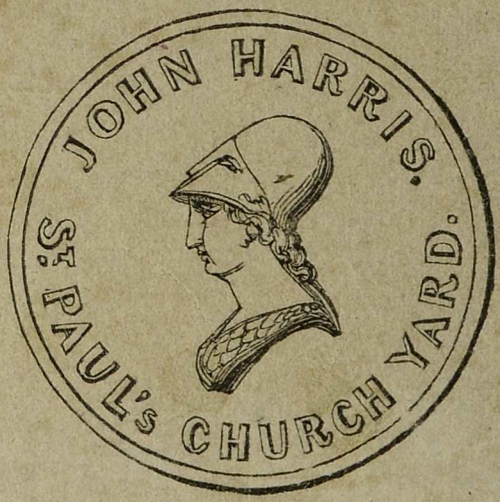
8. THE LADDER TO LEARNING; a Collection of Fables, Original and Select, arranged progressively in one, two, and three Syllables. Edited and improved by Mrs. TRIMMER. With eighty-seven Engravings on Wood. Price 5s. 6d. half-bound, plain; or 7s. 6d. coloured.

9. SCENES IN EUROPE, ASIA, AFRICA, AND AMERICA. By the Rev. I. TAYLOR. Each illustrated with eighty-four Engravings and a Map. Price 4s. each volume, plain; or 6s. coloured.

10. FRUITS OF ENTERPRIZE, exhibited in the Travels of BELZONI in Egypt and Nubia; interspersed with the Observations of a Mother to her Children, and illustrated with twenty-four Plates. To which is added, A Short Account of the Traveller's Death. Price 6s. half-bound, plain; or 7s. 6d. coloured. Fifth Edition.

11. POLAR SCENES, exhibited in the Voyages of Heemskirk and Barenz to the Northern Regions; and in the Adventures of Four Russian Sailors at the Island of Spitzbergen. Translated from the German of M. CAMPE. Illustrated with thirty-six copper-plate Engravings. Price 5s. plain; or 6s. 6d. coloured. Fourth Edition.

12. THEODORE; or, the Crusaders; a Tale for Youth. By MRS. HOFLAND, Author of "The Son of a Genius," &c. Price 3s. 6d. half-bound. Fourth Edition.


JOHN HARRIS.
ST. PAUL'S CHURCH YARD.