

## THE ASS\*.

THIS animal, even when examined with minute attention, has the appearance of a degenerated horse. The exact similarity in the structure of the brain, lungs, stomach, intestinal canal, heart, liver, and other viscera, and the great resemblance of the body, legs, feet, and whole skeleton, seem to support this opinion. The slight differences which take place between these two animals may be attributed to the long continued influence of climate and food, and to a fortuitous succession of many generations of small wild horses, who, by gradually degenerating, at last produced a new and permanent species, or rather a race of similar individuals, all marked with the same defects, and differing so widely from the genuine horse, as to be regarded as constituting a new species. The greater variety of the colour of horses than of asses appears to favour this idea: This circumstance shows that the former have been longer in a do-

\* The ass has long slouching ears and a short mane. The tail is covered with long hairs at its termination only; and the body is generally of an ash colour, with a black bar cross the shoulders. His hoof consists of one piece; and he has six cutting teeth in each jaw.

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mellic state; for the colour of all domestic animals varies much more than that of wild ones of the same species. Besides, the wild horses mentioned by travellers are generally small, and have, like the ass, gray hair, and a naked tail, tufted at the extremity. Some wild, as well as domestic horses, have likewise a black line on the back, and other characters which make them nearly approach to the ass.

On the other hand, if we attend to the differences of temperament, dispositions, manners, and, in a word, of the general result of the organization of these two animals, particularly the impossibility of their commixture, so as to form a common, or even an intermediate species, capable of procreating, the opinion, that they were originally distinct species, equally removed from each other as at present, will appear to be the most probable. The ass, besides, differs materially from the horse, in smallness of stature, thickness of the head, length of the ears, hardness of the skin, nakedness of the tail, the form of the buttocks, and the dimensions of the adjacent parts, the voice, the appetite, the manner of drinking, &c. Is it possible that animals so essentially different, should spring from the same original stock? Are they, to use the language of nomenclators\*, of the same family? Or rather,

\* *Equus cauda undique setosa, the horse; equus cauda extremitate setosa, cruce nigra supra humeros, the ass.* Lys. Sy#. Nat. Class. 1. ord. 6.

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are they not, and have they not always been, distinct animals?

Philosophers will perceive the extent, the difficulties, and the importance of this question, which we shall here discuss, only because it for the first time occurs. It relates to the production of beings, and, for its illustration, requires that we should consider Nature under a new point of view. If, from the immense number of animated beings which people the universe, we select a single animal, or even the human body, as a standard, and compare all other organized beings with it, we shall find that each enjoys an independent existence, and that the whole are distinguished by an almost infinite variety of gradations. There exists, at the same time, a primitive and general design, which may be traced to a great distance, and whose degradations are still slower than those of figure or other external relations: For, not to mention the organs of digestion, of circulation, or of generation, without which animals could neither subsist nor reproduce, there is, even among the parts that contribute most to variety in external form, such an amazing resemblance as necessarily conveys the idea of an original plan upon which the whole has been conceived and executed. When, for example, the parts constituting the body of a horse, which seems to differ so widely from that of man, are compared in detail with the human frame, instead of being struck with the difference,

ence, we are astonished at the singular and almost perfect resemblance. In a word, take the skeleton of a man, incline the bones of the pelvis, shorten those of the thighs, legs, and arms, lengthen the bones of the feet and hands, join the phalanges of the fingers and toes, lengthen the jaws by shortening the frontal bone, and, lastly, extend the spine of the back: this skeleton would no longer represent that of a man, but would be the skeleton of a horse; for, by lengthening the back-bone and the jaws, the number of vertebræ, ribs, and teeth, would likewise be augmented; and it is only by the number of these bones, which may be regarded as accessory, and by the prolonging, contracting, or junction of others, that the skeleton of a horse differs from the skeleton of a man. But, to trace these relations more minutely, let us examine separately some parts which are essential to the figure of animals, as the ribs: These we find in man, in all quadrupeds, in birds, in fishes, and the vestiges of them are apparent even in the shell of the turtle: let us next consider, that the foot of a horse, so seemingly different from the hand of a man, is, however, composed of the same bones, and that, at the extremity of each finger, we have the same small bone, resembling a horse-shoe, which bounds the foot of that animal. From these facts we may judge, whether this hidden resemblance is not more wonderful than the apparent differences; whether

ther this constant uniformity of design, to be traced from men to quadrupeds, from quadrupeds to the cetaceous animals, from the cetaceous animals to birds, from birds to reptiles, from reptiles to fishes, &c. in which the essential parts, as the heart, the intestines, the spine, the senses, &c. are always included, does not indicate, that the Supreme Being, in creating animals, employed only one idea, and, at the same time, diversified it in every possible manner, to give men an opportunity of admiring equally the magnificence of the execution and the simplicity of the design?

In this view, not only the horse and ass, but man, monkeys, quadrupeds, and every species of animal, may be considered as one family. But from this are we warranted to conclude, that, in this great and numerous family, which were brought into existence by the Almighty alone, there are lesser families conceived by Nature, and produced by time, of which some should only consist of two individuals, as the horse and ass, others of several individuals, as the weasel, the ferret, the martin, the pole-cat, &c.; and, at the same time, that, among vegetables, there are families consisting of ten, twenty, thirty, &c. plants? If these families really existed, they could only be produced by the mixture and successive variation and degeneration of the primary species: and if it be once admitted, that there are families among plants and ani-

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mals, that the ass belongs to the family of the horse, and differs from him only by degeneration; with equal propriety may it be concluded, that the monkey belongs to the family of man; that the monkey is a man degenerated; that man and the monkey have sprung from a common stock, like the horse and ass; that each family, either among animals or vegetables, has been derived from the same origin; and even that all animated beings have proceeded from a single species, which, in the course of ages, has produced, by improving and degenerating, all the different races that now exist.

Those naturalists who, on such slight foundations, have established families among animals and vegetables, seem not to have considered, that, if their doctrine were true, it would reduce the product of the creation to any assignable number of individuals, however small: For, if it were proved, that animals and vegetables were really distributed into families, or even that a single species was ever produced by the degeneration of another, that the ass, for instance, was only a degenerated horse, no bounds could be fixed to the powers of Nature: She might, with equal reason, be supposed to have been able, in the course of time, to produce, from a single individual, all the organized bodies in the universe.

But this is by no means a proper representation of Nature. We are assured by the autho-

city of revelation, that all animals have participated equally of the favours of creation; that the two first of each species were formed by the hands of the Almighty; and we ought to believe that they were then nearly what their descendants are at present. Besides, since Nature was observed with attention, since the days of Aristotle to those of our own, no new species have appeared, notwithstanding the rapid movements which break down and dissipate the parts of matter, notwithstanding the infinite variety of combinations which must have taken place during these twenty centuries, notwithstanding those fortuitous or forced commixtures between animals of different species, from which nothing is produced but barren and vitiated individuals, totally incapable of transmitting their monstrous kinds to posterity. Were the external or internal resemblances of particular animals, therefore, still greater than they are between the horse and ass, they should not lead us to confound these animals, or to assign them a common origin. For, if they actually proceeded from the same stock, we should be enabled to bring them back to their primitive state, and thus, with time, destroy the supposed operations of time.

It should likewise be considered, that, though Nature proceeds with gradual, and often imperceptible steps; yet the intervals or marks of distinction are not always equal. The more dignified

nified the species, they are always the less numerous, and separated by more conspicuous shades. The diminutive species, on the contrary, are very numerous, and make nearer approaches towards each other. For this reason, we are often tempted to erect them into families. But it should never be forgotten, that these families are of our own creation; that we have contrived them to ease our memories, and to aid our imagination; that, if we cannot comprehend the real relations of all beings, it is our own fault, not that of Nature, who knows none of those spurious families, and contains, in fact, nothing but individuals.

An individual is a solitary, a detached being, and has nothing in common with other beings, except that it resembles, or rather differs from them. All the similar individuals which exist on the surface of the earth, are regarded as composing the species of these individuals. It is neither, however, the number nor the collection of similar individuals, but the constant succession and renovation of these individuals, which constitute the species. A being, whose duration was perpetual, would not make a species. Species, then, is an abstract and general term, the meaning of which can only be apprehended by considering Nature in the succession of time, and in the constant destruction and renovation of beings. It is by comparing present individuals with those which are past, that we

acquire a clear idea of species; for a comparison of the number or similarity of individuals is an accessory idea only, and often independent of the first: The ass resembles the horse more than the spaniel does the greyhound; and yet the latter are of the same species, because they produce fertile individuals; but, as the horse and ass produce only unfertile and vitiated individuals, they are evidently of different species.

It is in the characteristic diversities of species, therefore, that the intervals in the shades of Nature are most conspicuously marked. We may even affirm, that these intervals between different species are the most equal and constant, since we can draw a line of separation between two species, that is, between two successions of individuals who reproduce, but cannot mix; and since we cannot also unite into one species two successions of individuals who reproduce by mixing. This is the most fixed and determined point in the history of Nature. All other similarities and differences which can be found in the comparison of beings, are neither so real nor so constant. These intervals are the only lines of separation which shall be followed in this work. We shall introduce no artificial or arbitrary divisions. Every species, every succession of individuals, who reproduce and cannot mix, shall be considered and treated separately; and we shall employ no other families, genera, orders, and classes, than what are exhibited by Nature herself.

Species

Species being thus limited to a constant succession of individuals endowed with the power of reproduction, it is obvious that this term ought never to be extended beyond animals and vegetables, and that those nomenclators who have employed it to distinguish the different kinds of minerals, have abused terms and confounded ideas. We should not, therefore, consider iron as one species, and lead as another species: They ought only to be regarded as two different metals, and should be distinguished by lines of separation very different from those employed in the distinctions of animals or vegetables.

But to return to the degeneration of beings, and particularly to that of animals. Let us examine more closely the proceedings of Nature in the varieties she offers to our consideration: And, as we are best acquainted with the human species, let us observe how far the varieties of it extend. Among men, all the gradations of colour, from black to white, are exhibited: They likewise differ, by one half, in height of stature, thickness, strength, swiftness, &c. But their mind is always the same. This latter quality, however, belongs not to matter, and ought not to be treated of in this place. The others are the common variations of Nature effected by the influence of climate and of food. But these differences in colour and dimensions prevent not the Negro and White, the Laplander and Patagonian, the giant and dwarf, from mixing together

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ther and producing fertile individuals; and, consequently, these men, so different in appearance, are all of one species, because this uniform reproduction is the very circumstance which constitutes distinct species. Beside these general varieties, there are others of a more particular nature, and yet fail not to be perpetuated; as the enormous legs of *the race of St. Thomas* in the island of Ceylon\*; the red eyes and white hair of the Dariens and Chacrelas; the six fingers and toes peculiar to certain families†, &c. These singular varieties are accidental redundancies or defects, which, originating from some individuals, are propagated from generation to generation, like hereditary diseases. But they ought not to be regarded as constituting particular species; since these uncommon races of men with gross limbs, or with six fingers, are capable of mixing and of producing fertile individuals: The same remark is applicable to all other deformities which are communicated from parents to children.

Thus far only the errors of Nature and the varieties among men extend. If there are individuals who degenerate still farther, they produce nothing, and change not the constancy and unity of the species. Hence man constitutes but one and the same species; and, though this species be, perhaps, the most numerous, capri-

\* See vol. II. under the article, *Varieties of the Human Species*.

† See this and other curious subjects relative to generation, &c. in *les Lettres* de M. de Mausepueis.

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cious, and irregular in its actions; yet all the diversities in movement, food, climate, and other combinations which may be conceived, have not produced beings so different from each other as to constitute new species, and, at the same time, so similar to ourselves as to be considered as belonging to us.

If the Negro and the White could not propagate, or if their productions remained barren, they would form two distinct species; the Negro would be to man what the ass is to the horse; or, rather, if the White were man, the Negro would be a separate animal, like the monkey; and we would be entitled to pronounce that the White and the Negro had not a common origin. But this supposition is contradicted by experience; for, as all the varieties of men are capable of mixing together, and of transmitting the kind, they must necessarily have sprung from the same stock or family.

A slight disparity of temperament, or some accidental defect in the organs of generation, will render two individuals of the same species barren. A certain degree of conformity in the structure of the body, and in the organs of generation, will enable two animals, of different species, to produce individuals, similar to none of the parents, resembling nothing fixed or permanent; and, therefore, incapable of producing. But, what an amazing number of combinations are included in the supposition, that two animals,

mals, a male and a female, of a particular species, should degenerate so much as to form a new species, and to lose the faculty of producing with any other of the kind but themselves? It is still more incredible that the offspring of such degenerated creatures should follow exactly the same laws which are observed in the procreation of perfect animals: For a degenerated animal is a vitiated production; and how should an origin that is vitiated, depraved, and defective, constitute a new stock, and not only give rise to a succession of permanent and distinct beings, but even to produce them in the same manner, and according to the same laws which regulate the propagation of animals whose race is pure and uncorrupted?

Though, therefore, we cannot demonstrate, that the formation of a new species, by means of degeneration, exceeds the powers of Nature; yet the number of improbabilities attending such a supposition, renders it totally incredible: For, if one species could be produced by the degeneration of another, if the ass actually originated from the horse, this metamorphosis could only have been effected by a long succession of almost imperceptible degrees. Between the horse and ass, there must have been many intermediate animals, the first of which would gradually recede from the nature and qualities of the horse, and the last would make equal advances to those of the ass. What is become of these intermediate beings?

ings? Why are their representatives and descendants now extinguished? Why should the two extremes alone exist?

We may, therefore, without hesitation, pronounce the ass to be an *Ass*, and not a degenerated horse, a horse with a naked tail. The ass is not a marvellous production. He is neither an intruder nor a bastard. Like all other animals, his family, his species, and his rank, are ascertained and peculiar to himself. His blood is pure and untainted: And, though his race be less noble and illustrious, it is equally unalloyed, and as ancient as that of the horse. Why, then, should an animal so good, so patient, so temperate, and so useful, be treated with the most sovereign contempt? Do men despise, even in the brute-creation, those who serve them best, and at the least expence? The horse we educate with great care; we dress, attend, instruct, and exercise him: While the poor ass, abandoned to the brutality of the meanest servants, or to the malicious abuse of children, instead of acquiring, is rendered more stupid and indocile, by the education he receives. If he had not a great stock of good qualities, they would necessarily be obliterated by the manner in which he is treated. He is the sport and pastime of rustics, who conduct him with a rod, who bear, overload, and abuse him, without precaution or management. We consider not, that, if the horse had no existence, the ass, both in himself and with regard to us, would be the first, handsomest,

some, most beautiful, and most distinguished animal in the creation. He holds, however, only the second, instead of the first rank; and, for that reason, he is neglected and despised. It is comparison alone that degrades him. We view and judge of him, not as he is, but in comparison with the horse. We forget that he is an ass, that he has all the qualities and endowments peculiar to his species; and we contemplate the figure and qualities of the horse, which the ass neither has, nor ought to possess.

In his disposition, the ass is equally humble, patient, and tranquil, as the horse is proud, ardent, and impetuous. Chastisement and blows he endures with constancy, and perhaps with courage. He is temperate both as to the quantity and quality of his food. He eats contentedly the hardest and most disagreeable herbage, which the horse and other animals pass by and disdain. With regard to water, he is extremely nice. He drinks only from the clearest brooks he can find. In drinking, he is equally moderate as in eating. He never sinks his nose in the water, being afraid, as has been alledged, of the shadow of his ears \*. As no body takes the trouble of combing him, he often rolls on the grass, among thistles or ferns. Without paying any regard to the load he carries, he lies down and rolls as often as he can, seemingly with a view to reproach the neglect of his master; for he

\* Cardan de Sublimitate, lib. x.

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never wallows, like the horse, in the mire or in water. He is even afraid of wetting his feet, and turns off the road to avoid a puddle. His legs are also drier and cleaner than those of the horse. He is so susceptible of education, as to be sometimes exhibited in public shews \*.

The ass, when young, is gay, handsome, nimble, and even graceful. But, whether from age or maltreatment, he soon loses these qualities, and becomes sluggish, untractable, and stubborn. He discovers no ardour but in love. When under the influence of this passion, he is so furious that nothing can restrain him; and, by excessive indulgence, he sometimes dies soon after gratification. As his love rises to a degree of madness, his attachment to his progeny is likewise excessive. We are told by Pliny, that, when the young is separated from the mother, she will pass through flames to rejoin it. Though commonly abused, the ass has a great affection for his master, whom he scents at a distance, and distinguishes him from every other person. He knows likewise the places where his master puts up, and the roads which he frequents. His eyes are exceedingly good; his sense of smelling is admirable, especially when in quest of a female. His ear is excellent, which has contributed to make him be ranked among the timid animals, who are all said to have long ears and acute hearing. When oppressed with too great a load,

\* Aldrovand. de Quadruped. Soliped. lib. i. p. 308.

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he discovers his uneasiness by inclining his head and lowering his ears. When tormented by abuse, he opens his mouth and draws back his lips in a most disagreeable manner, which gives him an air of scorn and derision. If his eyes be covered, he stands immoveably still; and, when lying on one side, if the one eye rests on the ground, and the other be covered with a stone or any other opaque body, he will continue in that situation, without making the smallest effort to rise. He walks, trots, and gallops like the horse: But all his movements are slower and more circumscribed. Though he can run when he first sets out, with considerable swiftness, he continues his career only for a short time; and, whatever pace he assumes, if pushed hard, he is soon fatigued.

The horse neighs; but the ass brays: The last is performed by a very loud, long, disagreeable, discordant cry, consisting of discords alternately sharp and flat. He seldom brays but when pressed with hunger or love. The voice of the female is more clear and piercing than that of the male. When gelded, the ass brays with a low voice; and, though he makes the same efforts and the same motions of the throat, yet the sound reaches to no great distance.

Of all quadrupeds, the ass is least infested with lice or other vermin, which seems to be owing to the superior hardness and driness of his skin.

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For the same reason, he is less sensible to the whip, or the stinging of flies, than the horse.

At the age of two years and a half, the first middle cutting teeth fall out, and the others on each side soon follow. They are replaced in the same time and in the same order as those of the horse. The age of the ass is also distinguishable as in the horse, by the same marks in the teeth.

The ass, when two years and a half old, is capable of procreating. The female is still more early, and equally lascivious, which last is assigned as the reason for her want of fecundity. She rejects the cause of conception, unless the ardour of her desire be repressed by blows. Without this precaution, she is seldom impregnated. The ordinary season of love is the months of May and June. When pregnant, she soon becomes cool; and, in the eighth month, the milk appears in her paps. In the twelfth month she brings forth; and solid masses are often found in the liquor of the amnios, similar to the hippomanes of the foal. Seven days after delivery, her ardour returns, and she is in a condition to receive the male. Thus the female ass may be said to be capable of perpetually nourishing and engendering. She produces but one colt; and there are very few examples of her bringing forth two at a time. At the end of five or six months, the colt may be weaned, especially if the mother be pregnant, to enable her to afford proper nourishment to the foetus. The jack-

jack-ass should be chosen from the largest and strongest of his species. He should be at least three years of age, and should never exceed ten. He should have long limbs, a strong body, an elevated and small head, vivacious eyes, large nostrils and chest, fleshy loins, broad ribs, flat buttocks, a short tail, and shining soft hair of a deep gray colour.

The ass, like the horse, takes three or four years before he arrives at full maturity; and, of course, he lives to the age of 25 or 30 years. The females are said to live longer than the males. But this circumstance is probably owing to the females being often pregnant, and more humanely treated; while the males are perpetually persecuted with blows and excessive labour. They sleep less than the horse, and never lie down to sleep but after vast fatigue. The jack-ass lives longer than the stallion. The ardour of the former increases with his years; and, in general, the health of this animal is more permanent and established than that of the horse. The ass is less delicate, and subject to much fewer distempers. The ancients mention no other disease of the ass but the glanders, to which, as formerly remarked, he is still less liable than the horse.

Of asses there are different races, as well as of horses: But they are not equally known; because they have neither been taken care of, nor traced with the same attention. It cannot, how-

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ever, admit of a doubt, that they all originated from warm climates. Aristotle assures us\*, that, in his time, there were no asses in Scythia, or other northern nations, nor even in France, the climate of which, he remarks, was too cold: He adds, that cold climates either render them barren, or make them degenerate, which is the reason why they are small and feeble in Illyria, Thracia, and Epirus. They are still so in France, though they have been long naturalized, and though, within these two thousand years, the cold of the climate has been greatly diminished by the cutting down of vast forests, and the draining of marshes. But it is more certain, that they have not long resided in Sweden and other northern countries†. They appear to have come originally from Arabia, and to have passed from Arabia to Egypt, from Egypt to Greece, from Greece to Italy, from Italy to France, and from thence to Germany, Britain, Sweden, &c.; for it is a known fact, that they are weak and small in proportion to the coldness of the climate.

This migration appears to be well supported by the relations of travellers. Chardin remarks, 'That there are two kinds of asses in Persia, one of which is slow and heavy, and used only for carrying burdens; the other race come from Arabia, and are the handsomest and finest

\* De Generat. Animal. lib. xi.

† Linnæi Faun. Sæc.

' asses in the world. They have a glossy skin, a high head, and nimble limbs: They move well, and are employed for riding only. The saddles which are put upon them resemble round pannels, flattened above. They are made of woollen cloth, or of tapestry, with trappings and stirrups. The rider sits nearer the crupper than the neck. Some of these asses cost 400 livres, and they cannot be had for less than 25 pistoles. They are dressed like horses, and are never taught any motion but that of pacing. The art of training them consists of tying each fore-foot to the hind-foot of the same side with two cords, which are made of the length that the ass is to pace, and are suspended by another cord passed under the girth to the stirrup-leather. They are trained by grooms, every morning and evening, to this kind of motion. Their noses are slit, to make them breathe more freely; and they go so quick, that a horse must gallop in order to keep up with them.'

It were to be wished that the Arabians, who preserve with so much care, and for so long a time, the races of their horses, would pay equal attention to their asses: From the above passage, and other sources of information, however, it appears, that Arabia is the original and best climate for both animals. From Arabia the asses passed into Barbary\* and Egypt, where they

\* See Shaw's Travels.

are large and handsome. In India and Guiney\*, they are larger, stronger, and more useful than the horses of these countries. They are in high estimation at Madura†, where one of the most considerable tribes of Indians revere them in a peculiar manner, because they believe that the souls of all the nobility pass into the bodies of asses. Lastly, the number of asses exceeds that of horses in all the southern regions from Senegal to China. Wild asses are likewise more common than wild horses. The Latins, copying the Greeks, called the wild ass *onager*, which should not be confounded, as most naturalists and travellers have done, with the zebra, because the zebra is an animal of a different species from that of the ass. The onager, or wild ass, is not striped like the zebra, and is not nearly so elegant a figure. Wild asses are found in some of the islands of the Archipelago, and particularly in that of Cerigo‡. There are many of them in the deserts of Lybia and Numidia§. They are gray, and run so fleet, that they can only be overtaken in the chase by the best Barbary horses. When they see a man, they give a loud cry, sing up their heels, stop, and fly not till he makes a near approach. They are caught in snares and gins made of ropes. They pasture

\* Le Voyage de Guinée de Bosman, p. 239.

† Lettres Édifiantes, douzième recueil, p. 96.

‡ Dapper's Collection, p. 187.

§ Leonis Afric. de Afric. Descript. tom. ii. p. 52. et l'Afrique de Marmol, tom. i. p. 53.

in troops; and their flesh is eaten by the natives. In the days of Marmol, there were wild asses in Sardinia; but they were smaller than those of Africa; and Pietro della Valle says, that he saw a wild ass in Bassora\*. He differed not in figure from the domestic ass, only his colour was clearer, and he had, from the head to the tail, a line of white hair. He was also more vivacious and swifter than common asses. Olearius relates†, that one day the King of Persia invited him to the top of a small building, in the form of a theatre, to partake of a collation of fruits and sweet-meats; that, after the repast, thirty-two wild asses were introduced; that the King amused himself by shooting a few bullets and arrows at them; that he then allowed the same privilege to some of the nobility and ambassadors; that it was no small entertainment to see these asses running about, biting, and kicking each other, with several arrows sticking in their bodies; and that, when the whole were killed in presence of the King, they were sent to Isfahan for the royal family, the Persians being extremely fond of ass's flesh, &c. It does not appear, however, that all these 32 wild asses were taken in the forests: It is more probable that they were brought up in large parks for the pleasure of chasing and eating them.

Neither asses nor horses were found in America, though the climate of South America is

\* Voyages de Pietro della Valle, tom. viii. p. 49.

† Voyage d'Adam Olearius, tom. i. p. 511.

very agreeable to their nature. Those transported thither by the Spaniards, and left in large islands, or in the Continent, have multiplied exceedingly. They pasture in troops, and are taken by snares, like the wild horses.

The jack-ass and mare produce the large mules; and the horse and she-ass produce the smaller mules, which differ, in several respects, from the former. But, as we mean to treat of the generation of mules, jumars, &c. in a separate dissertation, we shall finish the history of the ass with the uses men derive from this animal.

Wild asses being unknown in our climates, we cannot determine whether their flesh makes a wholesome or savory dish. But this we know, that the flesh of the domestic ass is worse, harder, and more disagreeably insipid than that of the horse. Galen says, that it is a pernicious aliment, and produces diseases. The milk of the ass, on the contrary, is an approved remedy against certain distempers. The use of this remedy has been transmitted to us by the Greeks. To have good milk, the she-ass should be young, healthy, plump, and uncovered; the colt should be taken from her; she ought to be kept by herself, and fed with hay, oats, barley, and such salutary herbs as may have an influence on the malady. The milk should never be allowed to cool, nor even be exposed to the air, which injures it in a very short time.

As the skin of the ass is very hard and elastic, it is applied to many different uses. It is employed for making sieves, drums, shoes, and pocket-book parchment, which is laid over with a slight coat of plaster. The ass skin is likewise used by the eastern nations for making their sagri or chagrin\*. It is also probable, that the bones of the ass are harder than those of other animals, since the ancients preferred it for making their best sounding flutes.

In proportion to his size, the ass can carry more weight than any other animal. As he is fed at very little expence, and requires hardly any care, he is of great use for different kinds of country-business. He may likewise be used for riding: All his motions are soft, and he is not so apt to stumble as the horse. In countries where the land is light, he is often yoked in the plough; and his dung, in strong moist land, is an excellent manure.

\* Voyage de Thevenot, tom. ii. p. 64.

Plate XII.



*J. Bell sculpt.*

ASS.