The STAG, or RED DEER*.

THE ſtag is one of thoſe innocent, gentle, and peaceable animals, which ſeem to be deſtined to embelliſh and animate the ſolitudes of the foreſt, and to occupy, at a diſtance from man, the tranquil retreats of thoſe gardens of Nature. The elegance and lightneſs of his

* The deer kind have upright, ſolid, branched horns, which annually fall off; eight cutting teeth in the lower jaw, and none in the upper. The STAG has long, upright, rounded, and much branched horns: The brow antlers are ſlender and ſharp. The colour of the ſtag is generally a reddiſh brown, with ſome black about the face, and a black liſt runs down the hind part of the neck and between the ſhoulders. It grows to a large ſize; one killed in the county of Aberdeen weighed 18 ſtone Scottiſh weight, or 314lb. The horns of the American ſtag ſometimes weigh 30 lb. and are about four feet high. *Pennant's Synopſ. of Quad.* p. 49.

The name of the ſtag in Greek is Ελαφος, in Latin *Cervus*, in Italian *Cervo*; in Spaniſh *Ciervo*; in Portugueſe *Veado*; in German *Hirſch*; in Daniſh *Hiort*; in Swediſh *Kron-hiort*; in Dutch *Hért*; in Poliſh *Jelijenii*.

Cervus, Geſner. Icon. Animal. Quad. p. 43, 44. Aldrov. Quad. Biſulc. p. 771. 774. *Johnſt. Hiſt. Nat.* p. 58. tab. xxxv. fig. 1. Charleton de Differ. Animal. p. 8. *Ray, Synopſ. Quad.* p. 84. Plinii lib. viii.

CHARACT. GEN. Cervus, cornua ſolida, tenera, corio hirto tecta, apiceque creſcentia, denudata, annua. Dentes primores inferiores VIII. Laniarii nulli (interdum ſolitarii ſuperius). CHAR. SPEC. Cervus, elaphus, cornibus ramoſis, teretibus, recurvatis. *Linn. Syſt. Nat.* p. 93.

Cervus nobilis, ramis teretibus, omnibus notus; *Klein. Quad. Hiſt. Nat.* p. 23.

figure,

figure, the commodiouſneſs of his ſtature, the flexibility and ſpringineſs of his limbs, his grandeur, ſtrength, and ſwiftneſs, and his head, which is rather adorned than armed with living branches, that, like the leaves of trees, are annually renewed, ſufficiently diſtinguiſh him from the other inhabitants of the wood. As he is alſo the nobleſt of theſe animals, he miniſters to the pleaſure, and has occupied the leiſure, of the greateſt heroes. The exerciſe of the chaſe ſhould always ſucceed, or rather precede, the fatigues of war. To know the management of horſes and arms, are talents common to the warrior and the hunter. To be accuſtomed to fatigue, addreſs, dexterity, and quickneſs of movement, ſo neceſſary for the ſupport of courage, are qualities acquired in the chaſe, and extremely uſeful in battle. Hunting is a moſt delightful ſchool of a neceſſary art. It is the only amuſement which entirely diveſts us of care, the only recreation that is not accompanied with effeminacy, and gives vivacity and pleaſure, without languor or diſguſt.

How can men, who, from their ſituation in life, are perpetually haraſſed with company, be better employed than in hunting? Always ſurrounded with a multitude, teaſed with the importunity of their demands, obliged to give their attention to affairs which are foreign to them, agitated by the ſolicitations of men of high rank, and conſtrained and fettered in proportion to

their

their elevation, great men would feel only the weight of their own grandeur, and exiſt only for others, if they did not occaſionally abſtract themſelves from a croud of paraſites and flatterers. To preſerve ſelf-enjoyment, to recal perſonal attachments, and receive private friendſhip, ſentiments a thouſand times more precious and intereſting than all the ideas of grandeur, retirement from the tumult and buſineſs of the world is ſometimes neceſſary; and what retirement can be more various and animated than the chaſe? what exerciſe more uſeful to the body? what amuſement more agreeable to the mind?

Perpetual action, or intercourſe with man, is equally painful as perpetual thinking. Nature never intended man for the contemplation of abſtract ſubjects. To be occupied, without relaxation, in difficult ſtudies, to lead a ſedentary life, and to make the cloſet the centre of our exiſtence, is equally unnatural as to paſs our days in tumult and agitation, continually drawn along by the movements of other men, and obliged to keep a jealous and conſtrained watch over our own conduct, looks, and geſtures. Whatever ideas we may conceive of the dignity of human nature, it is apparent, that public exhibition is not exiſtence, and that we are leſs fitted for thinking than for action, for reaſoning than enjoyment. True pleaſure conſiſts in the unreſtrained uſe of ourſelves. Our beſt gifts are thoſe we receive from Nature. She preſents us with

with the uſeful and inexhauſtible enjoyments which ariſe from the air, the earth, the fields, and the foreſts. Hence a taſte for hunting, fiſhing, gardening, and agriculture, is natural to all men: And, in ſocieties leſs complicated than ours, there are only two ranks, both of them connected with this mode of life; the Nobles, whoſe buſineſs is arms and hunting; and the vulgar, who are occupied in cultivating the earth.

In poliſhed ſocieties, where every thing is improved and brought nearer perfection, to render hunting more delightful and ſprightly, to ennoble this moſt beneficial and reſpectable of all exerciſes, it has been formed into an art. The chaſe of the ſtag requires a ſpecies of knowledge, which can only be learned by experience: It implies a royal aſſemblage of men, horſes, and dogs, all ſo trained, practiſed, and diſciplined, that their movements, their reſearches, and their ſkill, muſt concur in producing one common end. The huntſman ſhould know the age and the ſex of the animal; he ſhould be able to diſtinguiſh with preciſion, whether the ſtag he has *harboured* * with his hound be a *knobber* †, a young ſtag ‡, in his ſixth or ſeventh year, or

* *To harbour* a ſtag, is to go round the place in which he has taken refuge, and to learn whether he has not eſcaped.

† *Knobber* is a ſtag after he paſſes his firſt year till he arrives at the third.

‡ In the third, fourth, or fifth year of his age.

an

an old ſtag *. The chief marks which convey this intelligence is derived from the *foot* †, and the excrement. The *foot* of the ſtag is better formed than that of the hind, or female. Her *leg* ‡ is more groſs and nearer the heel. The impreſſions of his feet are rounder, and farther removed from each other. He moves more regularly, and brings the hind foot into the impreſſion made by the fore foot. But the diſtance between the ſteps of the hind are ſhorter, and her hind feet ſtrike not ſo regularly the track of the fore feet. As ſoon as the ſtag acquires his fourth horns, he is eaſily diſtinguiſhed; but, to know the *foot* of a young ſtag from that of a hind, requires repeated experience. Stags of ſix, ſeven, &c. years, are ſtill more eaſily known; for their fore foot is much larger than the hind foot; the older they are, the ſides of their feet are the more worn §; the diſtance of their ſteps are more regular, than thoſe of young ſtags; they always place their hind foot exactly in the track of the fore foot, except, when they ſhed their horns, the old

* A ſtag is ſaid to be *old* from eight years and upwards.

† *Foot* is uſed for the impreſſion made on the ground by the foot.

‡ In the language of hunters, *leg* means the two bones behind the foot, which make an impreſſion on the ground along with the foot.

§ This mark is equivocal; for the wearing of the hoof depends much on the plainneſs or roughneſs of the country which the animals frequent.

ſtags

ſtags *miſplace* *, at this ſeaſon, nearly as often as the young ones; but in this they are more regular than the hind or young ſtag, placing the hind foot always at the ſide of the fore foot, and never beyond or within it.

When the huntſman, from the dryneſs of the ſeaſon, or other circumſtances, cannot judge by the foot, he is obliged to trace the animal backwards, and endeavour to find his dung. This mark requires, perhaps, greater experience than the knowledge of the foot; but, without it, the huntſman would be unable to give a proper report to the company. After the report of the huntſman, and the dogs are led to the refuge of ſtag, he ought to encourage his hound, and make him reſt upon the track of the ſtag till the animal be unharboured. Inſtantly the alarm is given to uncouple the dogs, which ought to be enlivened by the voice and the horn of the huntſman. He ſhould alſo diligently obſerve the foot of the ſtag, in order to diſcover whether the animal has ſtarted and ſubſtituted another in his place. But it is then the buſineſs of the hunters to ſeparate alſo, and to recall the dogs which have gone aſtray after falſe game. The huntſman ſhould always accompany his dogs, and encourage, without preſſing them too hard. He ſhould aſſiſt them in detecting all the arts of eſcape uſed by the ſtag; for this animal has remarkable

* *To miſplace*, is to put the hind foot out of the track of the fore foot.

addreſs

addreſs in deceiving the dogs. With this view, he often returns twice or thrice upon his former ſteps; he endeavours to raiſe hinds or younger ſtags to accompany him, and draw off the dogs from the object of their purſuit: He then flies with redoubled ſpeed, or ſprings off at a ſide, lies down on his belly, and conceals himſelf. In this caſe when the dogs have loſt his foot, the huntſmen, by going backwards and forwards, aſſiſt them in recovering it. But, if they cannot find it, they ſuppoſe that he is reſting within the circuit they have made, and go in queſt of him. But, if they are ſtill unable to diſcover him, there is no other method left, but, from viewing the country, to conjecture where he may have taken refuge, and repair to the place. As ſoon as they have recovered his foot, and put the dogs upon the track, they purſue with more advantage, becauſe they perceive that the ſtag is fatigued. Their ardour augments in proportion to his feebleneſs; and their ſcent becomes more diſtinct as the animal grows warm. Hence they redouble their cries and their ſpeed; and, though the ſtag practiſes ſtill more arts of eſcape than formerly, as his ſwiftneſs is diminiſhed, his arts and doublings become gradually leſs effectual. He has now no other reſource but to fly from the earth which he treads, and get into the waters, in order to cut off the ſcent from the dogs. The huntſmen go round theſe waters, and again put the dogs on the track of his foot. The ſtag, after

ter taking to the water, it is incapable of running far, and is ſoon *at bay**. But he ſtill attempts to defend his life, and often wounds the dogs, and even the huntſmen when too forward, by blows with his horns, till one of them cuts his hams to make him fall, and then puts an end to his life by a blow of a hanger. They now celebrate the death of the ſtag by a flouriſh of their horns; the dogs are allowed to trample upon him, and at laſt partake richly of the victory by devouring his fleſh.

Every ſeaſon is not equally proper for hunting the ſtag with hounds. In ſpring, when the leaves begin to unfold and to adorn the foreſts, when the earth is covered with freſh herbage and flowers, their perfumes diminiſh the ſenſation of the dogs; and, as the ſtag is then in his greateſt vigour, it is extremely difficult for them to come up with him. It is likewiſe a ſettled point among hunters, that, when the hinds are about to bring forth, the chaſe is moſt difficult, and that, at this period, the dogs often quit a fatigued ſtag, and purſue any hind which bounds before them. In the ſame manner, in the beginning of autumn, when the rutting ſeaſon commences, the hounds hunt without ardour: The ſtrong odour of love renders, perhaps, the ſcent more unintereſting; and, perhaps, at this ſeaſon, the odour of all ſtags is nearly the ſame. During the winter

* When a ſtag is worn out with fatigue, he turns upon the hounds, and is then ſaid to be at bay.

 ſnows,

ſnows, it is alſo improper to hunt the ſtag; becauſe the hounds have no acuteneſs of ſcent, and ſeem to purſue the foot rather by the eye than the noſe. As, in this ſeaſon, the ſtags find not ſufficient nouriſhment in their retreats, they iſſue forth into the more open parts of the country, and even into the ſown fields. They aſſemble in flocks in the month of December, and, when the froſts are ſevere, they ſeek ſhelter on the ſea-coaſts, or in covered places, where they lock themſelves faſt together, and acquire warmth by mutual reſpiration. When the rigours of winter decline, they frequent the borders of the foreſt, and make depredations on the riſing wheat. In ſpring they ſhed their horns, which fall off ſpontaneouſly, or by rubbing them gently againſt the branches of trees. It is ſeldom that both horns fall off at the ſame time, the one generally preceding the other a day or two. The old ſtags caſt their horns firſt, which happens about the end of February or beginning of March. An aged ſtag, or one in his ſeventh year or upwards, does not caſt his horns before the middle of March; a ſtag of ſix years ſheds his horns in April; young ſtags, or thoſe from three to five years old, ſhed their horns in the beginning, and thoſe which are in their ſecond year, not till the middle or end of May. But, in all this there is much variety; for old ſtags ſometimes caſt their horns ſooner than thoſe which are younger. Beſides, the ſhedding of the horns is advanced

vanced by a mild, and retarded by a ſevere and long winter.

As ſoon as the ſtags caſt their horns, they ſeparate from each other, the young ones only keeping together. They no longer haunt the deepeſt receſſes of the foreſt, but advance into the cultivated country, and remain among bruſhwood during the ſummer, till their horns are renewed. In this ſeaſon, they walk with their heads low to prevent their horns from rubbing againſt the branches; for they continue to have ſenſibility till they acquire their full growth. The horns of the oldeſt ſtags are not half completed in the middle of May, and acquire their full length and hardneſs before the end of July. Thoſe of the younger ſtags are proportionally later both in ſhedding and being renewed. But, as ſoon as they have acquired their full dimenſions and ſolidity, the ſtags rub them againſt the trees, in order to clear them of a ſkin with which they are covered: And, as they continue this friction for ſeveral days ſucceſſively, it is ſaid *, that the horns retain the colour peculiar to the juices of the trees againſt which they have been rubbed; that they become red when rubbed againſt beeches and birches, brown againſt oaks, and black againſt elms and trembling poplars. It is likewiſe ſaid, that the horns of young ſtags, which are ſmoother, take not ſo deep a tincture from the trees as thoſe of

* Le Nouveau Traité de la Venerie, p. 27.

old ſtags, which are rougher, and cloſer covered with little prominences; becauſe it is theſe prominences which retain the coloured juices of the trees. But I cannot believe that this is the true cauſe; for I have kept tamed ſtags in an incloſure where there was not a ſingle tree, and yet their horns were coloured in the ſame manner as in thoſe which inhabit the foreſts.

Soon after the ſtags have poliſhed their horns, they begin to feel the impreſſions of love. Towards the end of Auguſt or beginning of September, they leave the coppice, return to the foreſts, and ſearch for the hinds. They cry with a loud voice; their neck and throat ſwell, they become perfectly reſtleſs, and traverſe, in open day, the fields and the fallow grounds; they ſtrike their horns againſt trees and hedges; in a word, they ſeem to be tranſported with fury, and run from country to country till they find the hinds or females, whom they purſue and compel into compliance; for the female at firſt avoids and flies from the male, and never ſubmits to his embraces till ſhe be fatigued with the purſuit. The old hinds likewiſe come in ſeaſon before the younger ones. When two ſtags approach the ſame hind, they muſt fight before they enjoy. If nearly equal in ſtrength, they threaten, paw the ground, ſet up terrible cries, and attack each other with ſuch fury, that they often inflict mortal wounds with the ſtrokes of their horns. The combat never terminates but in the defeat or flight

flight of one of the rivals. The conqueror loſes not a moment in enjoying his victory, unleſs another rival approaches, whom he is again obliged to attack and repel. The oldeſt ſtags are always maſters of the field; becauſe they are ſtronger and more furious than the young ones, who muſt wait patiently till their ſuperiors tire, and quit their miſtreſſes. Sometimes, however, the young ſtags accompliſh their purpoſes when the old ones are fighting, and, after a haſty gratification, fly off. The hinds prefer the old ſtags, not becauſe they are moſt courageous, but becauſe they are much more ardent. They are likewiſe more inconſtant, having often ſeveral females at a time; and, when a ſtag has but one hind, his attachment to her does not continue above a few days: He then leaves her, goes in queſt of another, with whom he remains a ſtill ſhorter time; and, in this manner, paſſes from one to another, till he is perfectly exhauſted.

This ardour of love laſts only three weeks, during which the ſtags take very little food, and neither ſleep nor reſt. Night and day, they are either walking, running, fighting, or enjoying the hinds. Hence, at the end of the rutting ſeaſon, they are ſo meagre and exhauſted, that they recover not their ſtrength for a conſiderable time. They generally retire to the borders of the foreſts, feed upon the cultivated fields, where they find plenty of nouriſhment, and remain there till their ſtrength is re-eſtabliſhed. The

rutting ſeaſon of old ſtags commences about the beginning, and ends about the 20th day of September. In thoſe of ſix or ſeven years old, it begins about the tenth of September, and concludes in the beginning of October. In young ſtags, or thoſe in their third, fourth, or fifth year, it begins about the 20th of September, and terminates about the 15th of October; and, at the end of October, the rutting is all over, except among the *prickets*, or thoſe which have entered into their ſecond year; becauſe they, like the young hinds, are lateſt of coming into ſeaſon. Hence, at the beginning of November, the ſeaſon of love is entirely finiſhed; and the ſtags, during this period of weakneſs and laſſitude, are eaſily hunted down. In ſeaſons when acorns and other nuts are plentiful, the ſtags ſoon recover their ſtrength, and a ſecond rutting frequently happens at the end of October; but it is of much ſhorter duration than the firſt.

In climates warmer than that of France, the rutting time, like the ſeaſons, is more forward. Ariſtotle informs us *, that in Greece, it commences in the beginning of Auguſt, and terminates about the end of September. The hinds go with young eight months and ſome days, and ſeldom produce more than one fawn. They bring forth in May or the beginning of June, and ſo anxiouſly conceal their fawns, that they often expoſe themſelves to be chaſed; with a

* Ariſtot. Hiſt. Animal. lib. vi. c. 29.

view to draw off the dogs, and afterwards return to take care of their young. All hinds are not fertile; for ſome of them never conceive. Theſe barren hinds are groſſer and fatter than thoſe which are prolific, and alſo come ſooneſt in ſeaſon. Some hinds are ſaid to have horns like the ſtag, which is not altogether improbable. The young are not called *fawns* or *calves* after the ſixth month; the knobs of their horns then begin to appear, and they take the name of *knobbers* till their horns lengthen into *ſpears*, and then they are called *brocks* or *ſtaggards*. During the firſt ſeaſon, they never leave their mothers. In winter, the ſtags and hinds, of all ages, keep together in flocks, which are always more numerous in proportion to the rigour of the ſeaſon. They ſeparate in ſpring: The hinds retire to bring forth; and, during this period, the flocks conſiſt only of knobbers and young ſtags. In general, the ſtags are inclined to aſſociate, and nothing but fear or neceſſity obliges them to diſperſe. The ſtag is capable of generating at the age of eighteen months: Thoſe brought forth during the ſpring of the preceding year, cover the hinds in autumn; and it is preſumeable that theſe embraces are prolific. The following circumſtances, however, may render this opinion doubtful: The ſtags have not then acquired above a half or two thirds of their growth, which is not completed till the eighth year of their age; and their horns continue to increaſe

during the ſame period. But it ought to be remarked, that the fawn ſoon gathers ſtrength; that, during the firſt, and even the ſecond year, his growth is very quick; and that he has already a redundance of nouriſhment, becauſe his horns are conſiderably long, which is the moſt certain mark of ability to impregnate. It is allowed that animals, in general, are not capable of procreating till they have nearly acquired their full growth. But thoſe which have fixed ſeaſons for rutting or ſpawning, ſeem not to obſerve this law. Fiſhes ſpawn and are prolific before they have attained a fourth, or even an eighth part of their growth; and, among quadrupeds, thoſe which, like the deer-kind, have determined ſeaſons for rutting, procreate earlier than other animals.

There are ſo many relations between the nutrition, the production of the horns, the rutting, and the generation of theſe animals, that, to have a clear conception of the particular effects which reſult from them, it is neceſſary to give a general recapitulation of what I formerly advanced on the ſubject of reproduction *. Generation depends ſolely on a redundance of nouriſhment. During the growth of an animal, which is always moſt rapid in infancy, the nouriſhment is entirely exhauſted in the extenſion and developement of the body. Hence there is no redundance, conſequently no production or ſecretion

* See above, vol. ii. chap. ii. iii. iv.

tion of ſeminal fluid, and, of courſe, young animals are incapable of procreation. But, when they have obtained the greateſt part of their growth, the redundance of nouriſhment begins to manifeſt itſelf by new productions. In man, the beard, the hair, the prominency of the breaſts, and the expanſion of the organs of generation, appear at the age of puberty. In the brute creation, and particularly in the ſtag, this redundance produces effects ſtill more remarkable, as the growth of the horns, the ſwelling of the teſticles, the turgidity of the neck and throat, the fat, the rutting, &c. And, as the growth of the ſtag is at firſt very rapid, a year only paſſes before the redundance of nouriſhment begins to ſhow itſelf by the production of horns: If brought forth in May, the rudiments of the horns appear in the ſame month of the following year; and they continue to lengthen and acquire ſolidity, in proportion to the quantity of nouriſhment taken by the animal. About the end of Auguſt, they are fully grown, and ſo denſe and inſenſible, that the animal rubs them againſt the trees, in order to deprive them of the ſkin or ſcurf with which they are covered. At the ſame time, the fat, which is likewiſe produced by the redundance of nouriſhment, ceaſes to accumulate, and begins to be determined towards the organs of generation, and to excite in the ſtag that ardour of deſire which renders him perfectly furious. That the production of horns, and the ſecretion of ſemen, depend on the ſame cauſe, is evident from

from this fact, that, when the organs neceſſary for the ſecretion of ſemen are deſtroyed by caſtration, the production of the horns is likewiſe prevented; for, if this operation is performed after the horns are ſhed, they are never renewed; and if, on the contrary, it is done when the horns are perfect, they never fall off. In a word, after caſtration, the animal remains during life in the ſame condition it was before that operation. As it feels no longer the ardour of rutting, the concomitant ſymptoms likewiſe diſappear. There is no longer any accumulation of fat or ſuet, no more turgidity of the neck and throat, and the diſpoſition of the creature becomes more gentle and tranquil. The parts cut off, therefore, were neceſſary, not only for collecting the redundant nouriſhment, but likewiſe for puſhing it to the ſurface of the body in the form of fat, and particularly to the top of the head, where it gives riſe to the horns, and for giving vigour and ſpirit to the animal. Caſtrated ſtags, it is true, become fat; but they produce no horns; their neck and throat never ſwell; and their fat is never ſo highly exalted as that of entire ſtags, which, in the rutting ſeaſon, have an odour ſo ſtrong as to be perceived at a great diſtance; and their fleſh is ſo infected with it, that it is uneatable, offenſive to the ſmell, and putrifies in a very ſhort time; while that of the caſtrated ſtag may be preſerved freſh, and eat at all ſeaſons. The difference between the horns of ſtags of the ſame

ſame age, of which ſome are thick, and others thin and ſlender, which is ſolely owing to a defect of food, is another proof that the horns are produced by redundant nouriſhment: For a ſtag which inhabits a rich country, where he is not diſturbed by dogs or men, but is allowed to feed and ruminate in peace, will always have the higheſt, wideſt, largeſt, and moſt branchy horns. But thoſe which live in ſituations where they can neither find repoſe nor a ſufficient quantity of food, will have horns with few branches, ſlender ſtems and brow-antlers. Thus it is eaſy to judge, by the horns of the ſtag, whether he has lived in a rich and peaceable country, or the oppoſite. Thoſe which are in a bad condition, have been wounded, or much diſturbed by hunting, are ſeldom fat, or have fine horns; their rutting time is alſo later; and their horns are neither ſo ſoon ſhed nor renewed. Hence every circumſtance concurs in demonſtrating that the horns, like the ſeminal fluid, are nothing but the redundant and ſuperfluous organic nouriſhment, which could not be exhauſted in expanding and ſupporting the animal body.

It is, therefore, apparent, that penury of food both retards the growth and diminiſhes the ſize of the horns; and, perhaps, it is not impoſſible, by retrenching the quantity of food, to ſuppreſs entirely this production, without having recourſe to caſtration. It is, however, certain, that caſtrated ſtags eat leſs food than thoſe which are unmutilated; and the females of this ſpecies, as well

well as thoſe of the fallow-deer, the roe, and the elk, have no horns, becauſe they eat leſs than the males; and becauſe, at the very time that a redundance of nouriſhment would naturally happen, they are with young, and, inſtead of ſhowing itſelf externally, it is firſt exhauſted in nouriſhing the fœtus, and afterwards in nouriſhing the fawn. The objection, that the female rein-deer, which has horns like the male, rather ſupports than weakens this argument; for, of all horned animals, the rein-deer, in proportion to his ſize, has the largeſt and moſt voluminous horns, often extending, before and behind, the whole length of the body. He likewiſe abounds moſt in fat *; and, beſides, the horns of the female are much ſmaller than thoſe of the male. This example, therefore, proves no more than that, when the redundance is ſo great as not to be exhauſted by geſtation and the growth of the fœtus, it breaks through the body, and forms a new production, as in the male, only ſmaller in ſize, becauſe the quantity of redundant matter is leſs.

What I have remarked concerning nouriſhment ought not to be extended to the maſs or volume of the aliments, but only to the quantity of organic particles, that living, active, and prolific matter which unfolds and ſupports all animated beings. The reſt is nothing but dregs, which may be more or leſs in quantity, without inducing any change upon the body: And, as the

* La Venerie de du Fouilloux, p. 97.

lichen

lichen rangiferinus, or rein-deer liverwort, is the ordinary food of the rein-deer, and is more ſubſtantial than the leaves, the bark, or the buds of trees, it is not ſurpriſing, that this animal ſhould have a greater redundance of organic particles, and, conſequently, larger horns, and more fat, than the common ſtag. It muſt be acknowledged, however, that the organic matter which produces the horns, is not perfectly diſengaged from uſeleſs particles, and that it preſerves, after paſſing the body of the animal, marks of its former vegetable ſtate. The horns of the ſtag ſhoot, grow, and are diſpoſed like the branches of a tree. Its ſubſtance is, perhaps, leſs oſſeous than lignous. To uſe the expreſſion, it is a vegetable grafted upon an animal, participating of the nature of both, and forming one of thoſe ſhades by which Nature always bounds the extremities of her productions, and which ſhe employs to connect ſubſtances that are greatly removed from each other.

In the animal, as formerly remarked *, both extremities of the bones grow at a time. The fulcrum upon which the extending power is exerted, is in the middle of the bone, which part is always firſt oſſified, and from which the two extremes progreſſively recede, and continue ſoft till the bone acquires its full length. In the vegetable, on the contrary, only one extremity of the wood grows. The bud, which unfolds to form a

* See above, vol. ii. art. *Of Old Age and Death.*

branch,

branch, is attached to the old wood by its inferior extremity, and upon this fulcrum the power of longitudinal extenſion acts. This remarkable difference between the vegetation of bones and the ſolid parts of plants, does not take place in the horns of ſtags. On the contrary, nothing can be more ſimilar to the growth of a tree. The horns extend at one extremity only, the other ſerving for a fulcrum. They are at firſt tender as an herb, and then harden like wood. The ſkin which covers and grows along with them is their bark, and it is rubbed off after they attain their full ſize. As long as they continue to grow, their extremities are ſoft; and they likewiſe divide into ſeveral branches. In a word, every circumſtance is ſimilar, and correſponds in the developement of both. Hence the organic particles, which conſtitute the living ſubſtance of the ſtag, ſtill retain the impreſſion of the vegetable; becauſe they arrange themſelves in the ſame order as the parts of plants. Here it is apparent, that matter has an influence upon form. The ſtag which inhabits the foreſt, and feeds on the ſprigs of trees only, takes ſo ſtrong an impreſſion from the wood, that he produces a ſpecies of tree, which preſerves indelible and evident marks of its origin. This effect, though ſingular, is not ſolitary, and depends on a general cauſe, which I have already pointed out.

Both in animals and vegetables, the character, or mould, of each ſpecies, is the moſt conſtant and

and unalterable thing in Nature: What is moſt variable and deſultory, is the matter of which they are compoſed. Matter, in general, ſeems to be indifferent to all forms, and capable of receiving every poſſible impreſſion. The organic or living particles of this matter paſs from vegetables to animals, without deſtruction or alteration, and form equally the living ſubſtance of the herb, of the wood, of the fleſh, and of the bones. According to this view, it appears that matter can never have any influence on form, and that no kind of food, provided the animal can extract the organic particles, and aſſimilate them by nutrition, could induce any change upon the form, or have any other effect than to ſupport and expand the body, by modelling itſelf upon all the particles of the interior mould, and intimately penetrating them. What proves this point is, that animals which live upon herbage, a ſubſtance very different from that of their own bodies, extract from it materials ſufficient for the production of fleſh and blood, and that they are nouriſhed and grow as well as animals who feed upon fleſh alone. However, by examining Nature more minutely, we ſhall find, that the organic particles ſometimes do not perfectly aſſimilate themſelves to the internal mould, and that matter has often a ſenſible influence upon form. Size, for example, which is one of the attributes of form, varies in every ſpecies, according to the difference of climate. The quality and quantity

of

of fleſh, two other attributes of form, change according to the difference of food. This organic matter, therefore, which the animal aſſimilates to its own body by nutrition, is not abſolutely indifferent to the reception of every form, nor deprived of the original figure which it poſſeſſed. It retains ſome characters of its primitive ſtate. It acts, therefore, by its proper form upon that of the organized body to which it affords nouriſhment; and, though this action is almoſt imperceptible, and infinitely inferior to the power which obliges the organic particles to aſſimilate themſelves to the internal mould that receives them, yet, in the progreſs of time, ſenſible effects muſt reſult from it. The ſtag, who inhabits the foreſts, and lives ſolely upon wood, produces and carries about with him a ſpecies of trees, which is nothing but the redundant part of his nouriſhment. The beaver, who lives in the waters, and feeds upon fiſhes, has a tail covered with ſcales. The fleſh of the otter, and of moſt water fowls, is a Lent diet, a kind of fiſhy fleſh. We may, therefore, preſume, that animals perpetually nouriſhed by the ſame food, however ſtrong the original impreſſion of Nature, would, in proceſs of time, acquire a tincture from the qualities of this food, and undergo a kind of transformation, by an aſſimilation contrary to the firſt. The nouriſhment would no longer aſſimilate itſelf entirely to the form of the animal, but the animal would partly aſſimilate itſelf to the

the form of nouriſhment, as we perceive in the horns of the ſtag and the tail of the beaver.

In the ſtag, the horns are an acceſſory, a part foreign to the animal, and regarded as belonging to him only becauſe it proceeds from his body. But it is really a vegetable production, ſince it retains the characters of that vegetable from which it derives its origin, and reſembles the wood of trees, in the manner of its growth, ramification, ſolidity, drying, and ſeparation; for, after acquiring its greateſt denſity, it ceaſes to extract nouriſhment, it falls ſpontaneouſly, like a ripe fruit from the branch. The very name given to this production in our language is an indication that it has been regarded as wood*, and not as a horn, a bone, a tuſk, &c. And, though this theory ſeems to be ſufficiently eſtabliſhed by the preceding reaſoning, yet I ought not to paſs over a fact recorded by the ancients. Ariſtotle†, Theophraſtus‡, and Pliny‖, tell us, that ivy has been ſeen growing round the young horns of ſtags. If this fact be true,

* The French call the horns of a ſtag his *wood*.

† Captus jam cervus eſt, hederam ſuis enatam cornibus gerens viridem, quæ cornu adhuc tenello forte inſerta, quaſi ligno viridi coaluerit. *Ariſt. Hiſt. Animal.* l. ix. c. 5.

‡ Hedera in multis creatur, et quod mirabilius, viſa eſt in cornibus cervi etiam aliquando. Commovit (inquit Jul. Scaliger apud Theophraſtum) virum accuratum cervi cornibus hærens hedera; quid enim eo ſeminium detulit, &c. *Lib.* II. *de Cauſ. Plant.* cap. 23.

‖ In mollioribus cervorum cornibus hedera coaleſcit, dum ex arborum atritu illa experiuntur. *Plin. de Admirand. Auditionibus.*

and it may eaſily be determined by experiment, an analogy ſtill more intimate will be eſtabliſhed between the *wood* of the ſtag and that of trees.

The horns and tuſks of other animals are not only different from the *wood* of the ſtag, but, in their growth, texture, and form, both external and internal, there is nothing analogous to wood. The nails, the claws, the hairs, the feathers, the ſcales of animals, grow, it is admitted, by a ſpecies of vegetation; but this vegetation differs widely from that of wood. The horns of oxen, goats, antelopes, &c. are hollow within; but the wood of the ſtag is equally ſolid through its whole extent. The ſubſtance of theſe horns is the ſame with that of the nails, claws, and ſcales: But the horns of the ſtag reſemble wood more than any other ſubſtance. The inſide of all hollow horns is covered with a kind of *periоſteum*, and they contain in their cavity a bone, or core, which ſupports them; they never ſhed, but grow during the life of the animal; and its age may be learned by their rings or annual circles. Inſtead of growing by their ſuperior extremity, like the *wood* of the ſtag, they grow like nails, feathers, and hairs, by their inferior extremity. In the ſame manner, the tuſks of the elephant, walrus, and wild boar, and all other animals, are hollow within, and grow only by their inferior extremity. Thus horns and tuſks

tuſks have no more analogy to the *wood* of the ſtag than nails, hairs, or feathers.

Vegetation may, therefore, be reduced to three kinds. The firſt, in which the growth proceeds from the ſuperior extremity, as in plants, trees, and the *wood* of the ſtag; the ſecond, where the growth advances from the inferior extremity, as in horns, nails, claws, hairs, feathers, ſcales, tuſks, teeth, and other external parts of animal bodies; the third, in which the growth proceeds from both extremities at the ſame time, as in bones, cartilages, muſcles, tendons, and other internal parts of animals. The material cauſe of all theſe three ſpecies, is the redundance of organic nouriſhment; and the aſſimilation of this nouriſhment by the internal mould, which receives it, is the effect. Thus the growth of an animal is always more or leſs rapid, in proportion to the quantity of this redundant nouriſhment; and, after the greateſt part of growth is acquired, it is determined to the ſeminal reſervoirs, endeavours to eſcape from the body, and to produce, by means of copulation, new organized beings. The difference between animals, which, like the ſtag, have fixed ſeaſons, and other animals which can engender at all times, proceeds entirely from their manner of feeding. Man, and domeſtic animals, who have daily an equal quantity of food, and often too much, are perpetually in a capacity for procreation. The ſtag, on the contrary, and moſt wild animals, who ſuffer greatly

in the winter for want of food, have then nothing redundant, and are incapable of generating till they recruit during the ſummer. It is immediately after this ſeaſon that the ſtag begins to rut; and, by the great waſte he ſuffers at this period, he continues during winter in a ſtate of languor and debility. His fleſh is then ſo meagre, and his blood ſo impoveriſhed, that worms breed under his ſkin, which ſtill augment his miſery, and he does not get quit of them till the ſpring, when he acquires new life and vigour by the active nouriſhment furniſhed to him by the freſh productions of the earth.

Thus the life of the ſtag is ſpent in alternate plenty and want, vigour and debility, health and ſickneſs, without having any change introduced into his conſtitution by theſe oppoſite extremes. He lives as long as other animals which are not ſubject to ſuch viciſſitudes. As he grows five or ſix years, he lives ſeven times that number, or from 35 to 40 years*. What has been reported concerning the longevity of the ſtag merits no credit. It is only a popular prejudice which prevailed in the days of Ariſtotle, and which that philoſopher conſidered as improbable, becauſe neither the time of geſtation, nor of the growth of the young ſtag, indicated long life†.

* Noveau Traité de la Venerie, p. 141.

† Vita eſſe perquam longa hoc animal fertur; ſed nihil certi ex iis quæ narrantur videmus; nec geſtatio aut incrementum hinnulli ita evenit quaſi vita eſſet prælonga. *Ariſt. Hiſt. Animal.* lib. vi. c. 29.

This

This authority ought to have aboliſhed the prejudice: But it has been renewed, in the ages of ignorance, by a fabulous account of a ſtag taken by Charles VI. in the foreſt of Senlis, with a collar upon which was written this inſcription, *Cæſar hoc me donavit.* The love of the marvellous inclined men to believe that this animal had lived a thouſand years, and had his collar from a Roman emperor, rather than to ſuppoſe that he came from Germany, where all the emperors take the name of *Cæſar*.

The horns of the ſtag augment annually both in height and thickneſs, from the ſecond to the eighth year, and continue nearly in equal beauty during all the vigour of life. But, when he grows old, his horns decline. Our ſtags have ſeldom more than twenty or twenty-two antlers or palms; and this number, even when at the higheſt pitch of vigour and perfection, is by no means conſtant; for it varies every year, according to the quantity of nouriſhment and repoſe the animal has enjoyed: The largeneſs of the horns depends on the ſame cauſe; and their quality is alſo determined by the kind of nouriſhment they receive. Like the wood of the foreſt, the *wood* of the ſtag is large, tender, and light, in moiſt and fertile countries, and ſhort, hard, and heavy, in dry and barren regions.

The ſize and ſtature of the animals themſelves likewiſe differ according to the places they inhabit. The ſtags which frequent the

valleys, or hills abounding in grain, are larger and taller than thoſe which feed upon dry and rocky mountains. The latter are low, thick, and ſhort. Neither are they equally ſwift; but they run longer than the former: They are alſo more vicious, and have longer hair on their heads. Their horns are commonly ſhort and black, like a ſtunted tree, the bark of which is always of a darker colour. But the horns of the ſtags which feed in the plains are high, and of a clear reddiſh colour, like the wood and bark of trees which grow in a good ſoil. Theſe little ſquat ſtags never frequent the lofty woods, but keep always among the coppices, where they can more eaſily elude the purſuit of the dogs. The Corſican appears to be the ſmalleſt of theſe mountain-ſtags. He exceeds not the half of the height of the ordinary kind, and may be regarded as a terrier among ſtags. His colour is brown, his body is ſquat, and his legs are ſhort. And what convinces me, that the ſize and ſtature of ſtags in general depend on the quantity and quality of their food, is, that, having reared one at my houſe, and fed him very plentifully for four years, he was much taller, thicker, and plumper, at that age, than the oldeſt ſtags in my woods, which are, however, of a very good ſize.

Yellow is the moſt common colour of the ſtag. But many of them are brown, and others red.

red. White ſtags are more rare, and ſeem to be a race that has become domeſtic, but very anciently; for both Ariſtotle and Pliny mention white ſtags; and they appear then to have been equally uncommon as at preſent. The colour of the horns, like that of the hair, depends on the age and nature of the animal, and the impreſſion of the air. The horns of young ſtags are whitiſh, and leſs deeply coloured than thoſe of the old. Stags, whoſe colour is a clear diluted yellow, have often pale ill-coloured horns. Thoſe which are of a lively yellow have generally red horns; and brown ſtags, eſpecially thoſe which have black hair on the neck, have likewiſe black horns. The internal ſubſtance of the horns, it is true, is almoſt equally white in all ſtags; but they differ greatly in ſolidity and texture. Some of them are very ſpongy, and even contain pretty large cavities. This difference in texture is ſufficient to account for their aſſuming different colours; and it is unneceſſary to have recourſe to the juices of trees, ſince we daily ſee the whiteſt ivory turn yellow or brown after being expoſed to the air, though its texture be much more compact than that of the ſtag's horns.

The ſtag appears to have a fine eye, an acute ſmell, and an excellent ear. When liſtening, he raiſes his head, erects his ears, and hears from a great diſtance. When he is going into a coppice, or other half covered place, he ſtops to look round him on all ſides, and ſcents the wind,

to diſcover if any object is near that might diſturb him. He is a ſimple, and yet a curious and crafty animal. When hiſſed or called to from a diſtance, he ſtops ſhort, and looks ſtedfaſtly, and with a kind of admiration, at carriages, cattle, or men; and, if they have neither arms nor dogs, he moves on unconcernedly, and without flying. He appears to liſten, with great tranquillity and delight, to the ſhepherd's pipe; and the hunters ſometimes employ this artifice to encourage and deceive him. In general, he is leſs afraid of men than of dogs, and is never ſuſpicious, or uſes any arts of concealment, but in proportion to the diſturbances he has received. He eats ſlow, and has a choice in his aliment; and, after his ſtomach is full, he lies down, and ruminates at leiſure. He ſeems to ruminate with leſs facility than the ox. It is only by violent ſhakes that the ſtag can make the food riſe from his firſt ſtomach. This difficulty proceeds from the length and direction of the paſſage through which the aliment has to go. The neck of the ox is ſhort and ſtraight; but that of the ſtag is long and arched; and, therefore, greater efforts are neceſſary to raiſe the food. Theſe efforts are made by a kind of hiccup, the movement of which is apparent, and continues during the time of rumination. His voice is ſtronger, and more quivering, in proportion as he advances in years. The voice of the hind is ſhorter and more feeble. She never bellows

bellows from love, but from fear. The ſtag, during the rutting ſeaſon, bellows in a frightful manner: He is then ſo tranſported, that nothing diſturbs or terrifies him. He is, therefore, eaſily ſurpriſed; as he is loaded with fat, he cannot keep long before the dogs. But he is dangerous when at bay, and attacks the dogs with a ſpecies of fury. He drinks none in winter, nor in ſpring, the dews and tender herbage being then ſufficient to extinguiſh his thirſt. But, during the parching heats of ſummer, to obtain drink, he frequents the brooks, the marſhes, and the fountains; and, in the ſeaſon of love, he is ſo over-heated, that he ſearches every where for water, not only to ſatisfy his immoderate thirſt, but to bathe and refreſh his body. He then ſwims more eaſily than at any other time, on account of his fatneſs. He has been obſerved croſſing very large rivers. It has even been alledged, that, attracted by the odour of the hinds, the ſtags, in the rutting ſeaſon, throw themſelves into the ſea, and paſs from one iſland to another at the diſtance of ſeveral leagues. They leap ſtill more nimbly than they ſwim; for, when purſued, they eaſily clear a hedge or a pale fence of ſix feet high. Their food varies in different ſeaſons. In autumn, after rutting, they ſearch for the buds of green ſhrubs, the flowers of broom or heath, the leaves of brambles, &c. During the ſnows of winter, they feed upon the bark, moſs, &c. of trees; and, in mild weather, they

they browſe in the wheat-fields. In the beginning of ſpring, they go in queſt of the catkins of the trembling poplar, willow, and hazel trees, the flowers and buds of the cornel-tree, &c. In ſummer, when they have great choice, they prefer rye to all other grain, and the black berry-bearing alder * to all other wood. The fleſh of the fawn is very good; that of the hind and knobber not abſolutely bad; but that of the ſtag has always a ſtrong and diſagreeable taſte. The ſkin and the horns are the moſt uſeful parts of this animal. The ſkin makes a pliable and very durable leather. The horns are uſed by cutlers, ſword-ſlippers, &c. and a volatile ſpirit, much employed in medicine, is extracted from them by the chymiſts.

SUPPLEMENT.

IT is well known, that, in many animals, as cats, owls, &c. the pupil of the eye contracts prodigiouſly in the light, and dilates in the dark. But this great contraction and dilatation had never been obſerved in the eyes of the ſtag. I received from M. Beccaria, a learned phyſician and celebrated profeſſor at Piſa, the following letter, dated at Turin, October 28, 1767.

'I preſented a piece of bread,' ſays M. Beccaria, 'to a ſtag that was confined in an obſcure

* Rhamnus frangula Linn.

'apartment,

'apartment, to allure him to a window, that I 'might admire at leiſure the rectangular and 'tranſverſe form of his pupils, which, in a 'ſtrong light, exceed not half a line in width, 'by about five lines in length. In a fainter 'light, their breadth enlarges to more than a 'line and a half; but ſtill preſerve their rectan-'gular figure: And, in paſſing from light to 'darkneſs, they dilate about four lines, but al-'ways tranſverſely, that is, horizontally, and 'preſerve their rectangular form. Theſe facts 'may be eaſily aſcertained, by laying the hand 'upon the eye of a ſtag; for, whenever the eye 'is uncovered, the pupil will be ſeen dilated 'above four lines.'

From this fact M. Beccaria concludes with probability, that the other ſpecies of deer enjoy the ſame power of contracting and dilating their pupils. But, what is moſt remarkable, the pupils of cats, owls, and ſeveral other animals, contract and dilate vertically, while that of the ſtag contracts and dilates horizontally.

To the hiſtory of the ſtag, I muſt add a fact communicated to me by M. le Marquis d'Amezaga, who, to much learning, has joined great experience in the chaſe.

'Stags,' he remarks, 'ſhed their horns ſoon-'er or later in the month of March, in propor-'tion to their ages. At the end of June, the 'horns of the old ſtag are long, and begin to 'tickle him. It is at this time alſo, that the ſtags

'begin

'begin to rub off the ſkin which covers their 'horns. At the commencement of Auguſt, 'their horns begin to aſſume that conſiſtence 'which they retain during the reſt of the year. 'On the 17th of October, the attendants of the 'Prince of Condé purſued a ſtag of ſix years 'old. This was the rutting ſeaſon, when the 'ſtags are much leſs vigorous; but we were 'ſurpriſed to find the animal fly at a great rate, 'and lead near ſix leagues from his harbour.

'When this ſtag was ſeized, we found that 'his horns were white, and ſprinkled with blood, 'as they ought to be at the time they are rub-'bed againſt the trees; and that they had ſtill 'rags of the ſkin which covers them during the 'time of their growth. His horns were diver-'ſified with many branches. All the hunters 'who were in at the death expreſſed their ſur-'priſe at theſe appearances. But their aſtoniſh-'ment was augmented, when they wanted to 'remove his teſticles; for none were to be found 'in the ſcrotum. But, after opening the body, 'two teſticles were diſcovered in the abdomen, 'about the ſize of filberds, and we clearly per-'ceived that he had never experienced the 'effects of the rut. It is well known, that du-'ring the months of June, July, and Auguſt, the 'ſtags are prodigiouſly loaded with fat, which 'is generally ſo entirely exhauſted about the 'middle of September, that nothing but the muſ-'cular fleſh remains. But this ſtag had loſt

'none

'none of his fat, becauſe he was never in a 'condition for rutting. He had ſtill another 'ſingularity; for in the right foot he wanted 'the middle bone, which, in the left, was half 'an inch long, and as large and pointed as a 'tooth-pick.

'It is well known, that a ſtag, caſtrated when 'he has no horns, never afterwards acquires 'them, and that, if the operation is performed 'when his horns are in perfection, they remain 'in the ſame ſtate during life. Hence it ap-'pears, that the very minute organs of genera-'tion above deſcribed were ſufficient to pro-'duce the annual change of horns; but that 'Nature has always proceeded ſlowly in the con-'formation of this animal; for we could diſco-'ver no marks of any accident which could in-'duce us to believe that the order of Nature had 'been deranged. It is therefore reaſonable to 'ſuppoſe, that this retardation proceeded from 'the imbecility of the organs of generation, 'which, however, were ſufficient to produce the 'fall and renewal of the horns, ſince the cab-'bage or burs demonſtrated, that, at the time 'this ſtag was killed, he had had horns an-'nually from the ſecond to the ſixth year.'

Theſe obſervations of the Marquis d'Ameza-ga ſeem to prove, in a ſtill ſtronger manner than any thing formerly remarked, that the fall and renovation of the ſtag's horns depend entirely on the preſence of the teſticles, and partly on

their

their being more or leſs perfect; for, in the inſtance before us, the teſticles being imperfect and too ſmall, the horns, for that reaſon, in their growth, ſhedding, and renewal, were much later than in other ſtags.

Pontoppidan, when ſpeaking of the Norwegian ſtags, remarks, 'that they are only found 'in the dioceſes of Bergen and Drontheim; 'that they ſometimes ſwim in flocks acroſs the 'ſtraits between the continent and the neigh-'bouring iſlands, reſting their heads upon each 'other's crupper; and that, when the chief of 'the file is fatigued, he retires behind to repoſe 'himſelf, and the moſt vigorous occupies his 'place *.'

It has been thought, that the ſtags of our foreſts might, by treating them with care and gentleneſs, as the Laplanders manage the rain-deer, be rendered domeſtic. Upon this ſubject, M. le Vicomte de Querhoënt has communicated to me the following fact. Stags were firſt brought to the iſle of France by the Portugueſe. They are ſmall, and of a grayer colour than thoſe of Europe, from whom, however, they derived their origin. When the French took poſſeſſion of this iſland, they found great numbers of theſe ſtags, of which they deſtroyed a part, and the remainder took refuge in the moſt retired places. They are now rendered domeſtic,

* Pontoppidan's Nat. Hiſt. of Norway.

and

and ſome of the inhabitants keep large flocks of them.

I have ſeen, at l'Ecole Veterinaire, a ſmall kind of ſtag, which was ſaid to have been brought from the Cape of Good Hope. Its ſkin was interſperſed with white ſpots, like that of the axis. It was called the *Hog-ſtag*, becauſe its legs were thicker, and it had not the ſame agility of body as the common kind. The figure of it is repreſented in the Plate. Its length from the muzzle to the extremity of the body, was only three feet four inches and a half; the legs were ſhort, and the feet and hoofs very ſmall; the colour yellow, mixed with white ſpots; the eye black and open, with large black hair on the upper eye-lid; the noſtrils black, with a blackiſh band at the corners of the mouth; the colour of the head the ſame with that of the belly, only mixed with gray, and brown on the chanfrin and ſides of the eyes; the ears very large, garniſhed on the inſide with white hairs, and with ſmooth hair mixed with yellow on the outſide. The horns of this ſtag were eleven inches ſeven lines in length, and ten lines thick. The top of the back was browner than the reſt of the body. The tail was yellow above and white below; and the legs were of a browniſh black colour *.

This

* Mr. Pennant, in his Synopſis of Quadrupeds, which was publiſhed in the year 1771, has deſcribed this animal as a diſtinct ſpecies of deer. It is ſurpriſing, that this circumſtance ſhould

This animal ſeems to approach nearer to the ſtag than the fallow-deer, as appears from the bare inſpection of his horns.

ſhould have eſcaped our author, eſpecially as the two deſcriptions vary in ſeveral particulars. Mr. Pennant's words are: 'PORCINE DEER, with ſlender trifurcated horns, thirteen 'inches long, ſix inches diſtant at the baſe; head ten inches 'and a half long: Body, from the tip of the noſe to the tail, 'three feet ſix inches: Height, from the ſhoulders to the hoof, 'two feet two inches, and about two inches higher behind: 'Length of the tail eight inches: Body thick and clumſy: 'Legs fine and ſlender: Colour on the upper part of the neck, 'body, and ſides, brown; belly and rump of a lighter colour. 'In poſſeſſion of Lord Clive; brought from ſome part of India; 'called, from the thickneſs of their body, *Hog Deer*.' *Synopſ. of Quad.* p. 52.

Plate LIII.

M.Bell Sculp.t

STAG or HART

Plate LIV.

A Bell Sculp.

FEMALE RED DEER

Plate LV.

A Bell Sculp.

SMALL RED DEER

Plate LVI.

A Bell Sculp.

HOG STAG.